THE REMOVAL OF AGE CEILING CAP UNDER THE AGE DISCRIMINATION IN EMPLOYMENT ACT

JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON EMPLOYMENT OPPORTUNITIES

OF THE

COMMITTEE ON EDUCATION AND LABOR

AND THE

SUBCOMMITTEE ON
HEALTH AND LONG-TERM CARE

OF THE

SELECT COMMITTEE ON AGING
HOUSE OF REPRESENTATIVES

NINETY-NINTH CONGRESS

SECOND SESSION

HEARING HELD IN WASHINGTON, DC, MARCH 12, 1986

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THE REMOVAL OF AGE CEILING CAP UNDER THE AGE DISCRIMINATION IN EMPLOYMENT ACT

WEDNESDAY, MARCH 12, 1986

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON EMPLOYMENT OPPORTUNITIES,
COMMITTEE ON EDUCATION AND LABOR,
AND
SUBCOMMITTEE ON HEALTH AND LONG-TERM CARE,
SELECT COMMITTEE ON AGING,
Washington, DC.

The joint subcommittees met, pursuant to call, at 9 a.m., in room 2261, Rayburn House Office Building, Hon. Claude Pepper and Hon. Matthew G. Martinez (subcommittee chairmen) presiding.

Member present from the Subcommittee on Employment Opportunities: Representative Martinez.

Member present from the Subcommittee on Health and Long-Term Care: Representative Pepper.

Staff present from the Subcommittee on Employment Opportunities of the Committee on Education and Labor: Eric Jensen, staff director; Valerie White, legal assistant; Sharon Hawley, presidential management intern; and Jeff Fox, minority counsel.

Staff present from the Subcommittee on Long-Term Care of the Committee on Aging: Kathleen Gardner Cravedi, staff director; Melanie Modlin, assistant staff director; Peter Reinecke, research director; Patricia Butch, congressional fellow; Mark Hickman, intern; Leonard Scherlis, M.D., consultant; Lillian Simmons, volunteer; Lanny Miller, detailee; Mark Benedict, minority staff director; and Patrick McCarthy, detailee.

Mr. PEPPER. The committee will come to order, please.

Mr. Martinez, the distinguished chairman of the Subcommittee of Education and Labor which has jurisdiction over this subject is cochairman of this hearing with me, chairman of the Subcommittee on Health and Long-Term Care of the House Select Committee on Aging.

Mr. Martinez had advised me to go ahead with the hearing because he is temporarily delayed and will be here very shortly.

This is a very timely hearing because we are dealing with a very important subject. We have a very distinguished group of witnesses here for the enlightenment of the Congress upon this critical matter.

I believe that this measure, H.R. 4154, is properly designed to protect human rights. That is, the right to work and make a living

in an honorable way in a free country, and to allow the economic rewards to those who work to provide for their own security and sustenance.

When I was born in 1900, only 5 percent of the people were over 65 years of age. Now 11 percent are in that category. We are told that in less than 50 years almost 20 percent of our population will be over 65 years of age.

Strangely enough, we are told that the group above 65, which percentagewise is increasing most rapidly, is the group over 85—it so happens I became 85 last year. I thought if I could get to about 85, I could continue on for a good long while. I am delighted to know that that seems to be a fact in our population.

Are we going to have to provide more support for those living longer lives? Or are we going to enable older individuals to support themselves when they are able to do so and can and wish to do so?

That is basically what this hearing involves.

You may recall that prior to 1978, if an employee worked for the Government of the United States, that individual, no matter how great his or her health, how capable that individual was, how conscientious and responsible that individual might be, when he or she reached the age of 70 the Government of the United States would say, "quit."

Well, what has an individual done wrong? They are 70 years old. What has that got to do with it, with doing the job right? The law says that you may be and should be mandatorily retired when you reach the age of 70 years of age.

Well, we changed that in 1978. Many of you here helped do that. Today, you do retire, and there is no reason for your mandatory retirement, you cannot be, under the law, mandatorily retired because you have reached 70 years of age.

It used to be when you reached 65 years of age, the employer could walk right in one fair morning and say, "I am sorry, Mr. Jones, but this is your last day." "Why, Mr. so and so, have I done something wrong?" "No, you are 65 years of age, and under the law we are permitted to discharge you mandatorily on account of that fact."

In other words, older Americans are being denied the presumption of competence when there is not adequate protection for those people.

We changed that in 1978. We moved the age of mandatory retirement in the private sector to 70. They can't mandatorily discharge anybody on account of age who is under 70 years of age.

Now we are moving a step further. We have already taken the cap off of those working for the U.S. Government. Now we want to take the cap off of those working in private enterprise, and that is what this bill, H.R. 4154, does.

Our Subcommittee on Health and Long-Term Care has rather painstakingly, under the direction of our able staff director, Ms. Gardner, who sits here by me, prepared a report on mandatory retirement. If I may, Mr. Chairman, without objection, I will offer this report on behalf of our subcommittee for inclusion in the record.

Mr. MARTINEZ. So ordered.

[The document referred to follows:]

ELIMINATING MANDATORY RETIREMENT

A REPORT BY
THE HONORABLE CLAUDE PEPPER
CHAIRMAN, SUBCOMMITTEE ON HEALTH AND LONG-TERM CARE
U.S. HOUSE SELECT COMMITTEE ON AGING

PRESENTED
MARCH 12, 1986
AT A
JOINT HEARING
OF THE SUBCOMMITTEE ON HEALTH AND LONG-TERM CARE
AND
THE SUBCOMMITTEE ON EMPLOYMENT OPPORTUNITIES
U.S. HOUSE COMMITTEE ON EDUCATION AND LABOR
HONORABLE MATTHEW G. MARTINEZ, CHAIRMAN

"The wealth of one of our greatest natural resources is lost when uncalled-for retirement is forced upon a person. . . Retirement traditionally has been the so-called 'golden years,' but what is golden about them is people feel useless and are expected to do almost nothing?"

--- Letter to Cong. Claude Pepper, February 24, 1985, from a concerned citizen in Oakland, California

ELIMINATING MANDATORY RETIREMENT

QUESTIONS AND ANSWERS

What is mandatory retirement?

Mandatory retirement refers to the forced departure of an employee because that person has attained an age deemed, for whatever reason, to be the cut-off age for employment in that particular job. This age is determined either through statute or through court ruling.

What is the current age of mandatory retirement?

It varies according to the nature of the work, whether or not the profession is protected by the provisions of the Age Discrimination in Employment Act (ADEA), and whether the work is performed in the public or private sector.

Under current law, the ADEA protects private sector workers agaisnt mandatory retirement up to the age of 70. In 1978, mandatory retirement was eliminated altogether for Federal workers.

What percentage of American workers are subject to mandatory retirement laws?

An estimated 51 percent of older workers outside the Federal government face a mandatory retirement age of 70 or more. (As noted above, Federal government workers under the protection of the ADEA have no mandatory retirement age.)

Can you describe more fully the Age Discrimination in Employment Act (ADEA)?

The Age Discrimination in Employment Act, adopted in 1967, prohibits discrimination in employment because of age in such matters as hiring, job retention, compensation, and other terms, conditions or privileges of employment. The ADEA protects workers who are at least 40, but less than 70, years of age from discrimination on the basis of age by most employers of 20 or more persons (including State and local governments), employment agencies, and labor organizations that have 25 or more members. Most Federal employees and applicants who are at least 40 years old are also covered, but without an upper age limit.

The Act specifies that actions otherwise deemed unlawful may be permitted if they are based upon the following considerations:

(1) where age is a bona fide occupational qualification reasonably necessary to normal operations of a particular business;

(2) where differentiation is based on reasonable factors other than age (e.g., the use of physical examinations relating to minimum standards reasonably necessary for specific work to be performed on a job);

(3) to observe the terms of a bona fide seniority system or a bona fide employee benefit plan such as a retirement, pension, or insurance plan, with the qualification that no seniority system or benefit plan may require or permit the involuntary retirement of any individual who is covered by the ADEA; and

(4) where an employee is discharged or disciplined for good cause.

The Equal Employment Opportunity Commission (EEOC) is responsible for the administration and enforcement of the ADEA, except in the Federal sector where the Office of Personnel Management (OPM) is responsible.

What are some of the occupations which lie outside the protection of the ADEA?

Several groups of Federal employees, including foreign service officers, Central Intelligence Agency employees, law enforcement officers and firefighters, and air traffic controllers, do have various specific mandatory retirement ages, set forth in separate laws that remain in effect. In addition, 1978 amendments to the ADEA provided two exceptions with regard to mandatory retirement: certain bona fide executive or high-ranking policy-making employees in private industry may be compulsorily retired at age 65; and, until July 1, 1982, tenured faculty at institutions of higher education could be compulsorily retired at age 65. The 1978 amendments also extended protection against discrimination to U.S. citizens employed by U.S. employers abroad.

Are there other Federal laws which deal with age discrimination?

Yes, there is a separate Age Discrimination Act, P.L. 94-135, as amended, which generally prohibits discrimination on the basis of age in programs or activities receiving Federal financial assistance.

Isn't "retirement" itself a fairly new notion?

"Retirement" is an idea that barely existed in turn-of-the-century America. The average life expectancy in 1900 was 46.3 for men and 48.3 for women, and persons generally continued working until attaining those ages, which startle us today because they are so low.

In 1900, the average American male spent 3% of his lifetime in retirement. In 1980, he spent more than one fifth of his life with that status.

What is the reasoning behind the mandatory retirement age of 70, which currently holds for those private sector employees protected by the ADEA?

Before gaining an understanding of why 70 was selected, we must examine the evolution of the retirement age which preceded it, 65.

It appears this number had its roots in Germany, with the Old Age and Survivors Pension Act which Chancellor Otto Von Bismarck instituted in 1889. This legislation represented the first time a Federal Government in the western world assumed obligation for the financial support of its older citizens and raised the need to define "old age." Bismarck selected 65 at that time. Great Britain passed similar legislation in 1908, initially selecting the age of 70 but later reducing it to 65. Other nations followed Bismarck's lead and the United States followed suit in 1935 with its Social Security system. Today, the normal retirement age as defined by public policy varies greatly by country, as well as by sex and type of work.

The rationale behind Bismarck's selection of age 65 as the start of "old age" seems to have been a most arbitrary one. Actually, in 1889, Bismarck was 74 and was a very active and powerful chancellor of the German Empire.

Concerning the United States' choice of 65 for Social Security eligibility, former Secretary of Health, Education and Welfare Wilbur Cohen, who drafted the 1935 Act, wrote in 1957, "This brief account of how age 65 was selected in the . . . United States indicates that there was no scientific, social, or gerontological basis for the selection. Rather, it may be said that it was the general consensus that 65 was the most acceptable age."

Given increasing lifespans in the United States and the increasing scrutiny which comes with time, American policymakers recently began questioning the age of 65 for retirement. When formulating the 1978 Amendments to the Age Discrimination in Employment Act, 70 was adopted as the mandatory retirement age for most non-Federal workers. It was as arbitrary as age 65 and was chosen as a compromise between those who wished to eliminate mandatory retirement altogether and those who would have preferred a continuance of mandatory retirement at age 65.

How have lifespans changed in the past century?

The life expectancy at birth for Americans has improved dramatically over the last century. People born today have a life expectancy 26 years longer than those born in 1900.

In 1900, the average life expectancy for men and women was 47.3 years. By 1935, the year the Social Security eligibility age of 65 was adopted, that age had risen to 61.7. In 1981, the average life expectancy had reached 74.2. To many, these longer lifespans are an indication that perhaps mandatory retirement is an outmoded concept; many persons do enjoy healthy and productive years even beyond the average lifespans.

What is the status of State law regarding mandatory retirement?

This will be described in detail in a later section of the report. All of the States parallel the Federal government by banning mandatory retirement through age 70 for the State government workforce and local government employees. The laws apply also to private sector workers, but some State laws include exemptions for private sector employees depending on the firm's size. Thirteen States have laws which go beyond the Federal law by prohibiting age discrimination, including mandatory retirement, without an upper age limit. These are California, Florida, Georgia, Hawaii, Iowa, Maine, Massachusetts,

Montana (by court interpretation of age discrimination statute), New Hampshire, New Jersey, New York, Tennessee, and Wisconsin. All but three of these States impose this ban on all employers.

In addition, Alaska, Nevada, New Mexico, North Carolina, North Dakota and Vermont have abolished mandatory retirement contingent upon court interpretation of age discrimination statutes.

What is the intent of Congressman Pepper's bill, H.R. 4154?

H.R. 4154 essentially guarantees that individuals employed in occupations currently covered under the Age Discrimination in Employment Act cannot be fired solely on the basis of age. The Pepper bill would not force anyone to continue working. Rather, it would simply permit those who desire to continue working and are competent enough to keep working to do so.

H.R. 4154 is a "clean bill," retaining all exemptions provided for in the 1978 ADEA Amendments. It does include an appropriate phase-in period for collective bargaining agreements negotiated prior to enactment of the bill. All such agreements negotiated after the enactment of this legislation would have to be in full compliance with its provisions.

If the Pepper bill were adopted, what would be the economic consequences?

This legislation would not cost the Government a penny. Instead, it is expected to contribute to the economic well-being of the nation. H.R. 4154 would generate an estimated $3 billion in the first year alone, because more than 195,000 older workers who would otherwise be retired would be contributing to their own economic support as well as to the Treasury and Social Security funds. As the Congress, faced with the terms of the Gramm-Rudman-Hollings deficit control act, looks for new revenue sources, it is hoped this bill will provide at least a partial solution.

REVIEW OF RECENT EVENTS

The 99th Congress shows evidence of continuing interest in the issue of older workers, in part because of concerns about balancing the budget and in part because of increasing interest in the philosophy that ageism is as unconscionable a form of discrimination as racism or sexism. Many feel that the elimination of mandatory retirement would contribute to the economic well-being of the United States, generating some $3 billion in the first year alone, because nearly 195,000 older workers who would otherwise be retired would be contributing to their own economic support, as well as to the Treasury and Social Security funds.

There are no less than 10 bills concerning mandatory retirement now pending in the House. Among these are Chairman Pepper's bill to remove the maximum age limitation applicable to employees who are protected under the ADEA (H.R. 4154); Aging Committee Chairman Edward R. Roybal's bill (H.R. 1710) to remove mandatory retirement ages for a broad range of civil servants, including U.S. Park Police, air traffic controllers, Federal Bureau of Investigation personnel and Department of Justice law enforcement personnel, Tax Court judges, and Foreign Service officers; Congressman Robert Matsui's bill (H.R. 1736) to eliminate the mandatory retirement age for Tax Court judges; Congressman Mervyn Dymally's bills (H.R. 3370, H.R. 3560, H.R. 3578 and H.R. 3592) to extend the mandatory retirement age of judges in District of Columbia courts to age 74 (from age 70); and Congressman Benjamin Gilman's measure (H.R. 3911) to raise the mandatory retirement age of law enforcement officers engaged in detention activities from 55 to 65 years.

The sole Senate bill on mandatory retirement was introduced by Senator Alan Cranston. This bill eliminates the upper age limitation (70 years of age) of the class of persons to whom the Age Discrimination in Employment Act applies. It would also prohibit any reinstatement of ADEA exemptions for tenured university faculty and eliminate the existing exemption for executies or high policy-making employees in private industry.

HISTORICAL OVERVIEW OF MANDATORY RETIREMENT

Forced retirement still persists, despite growing evidence that age is a poor indicator of job performance. According to the Department of Labor, a majority of all older non-federal workers in the United States face a mandatory retirement age. In most cases the mandatory retirement age is set at 70 since the federal Age Discrimination in

Employment Act (ADEA) protects workers against such practices until age 70.

Prior to 1978, most employers had established a mandatory retirement age of 65. This age had no special significance other than its coincidence with the age at which workers are entitled to their full Social Security benefits.

In 1978, the ADEA was amended to eliminate mandatory retirement for nearly all Federal workers and to increase to 70 the age at which non-Federal workers could be forcibly retired. The age of 70 was as arbitrary as age 65, and was agreed to as a compromise until the Labor Department was able to conduct a study of the impact of eliminating mandatory retirement altogether.

The 97th Congress showed renewed and vigorous interest in the issue of older workers, in part because of concerns about the financing problems of Social Security. During that session, 16 bills were introduced on the topic of mandatory retirement -- 11 in the House and five in the Senate. One of these was H.R. 6576, Congressman Pepper's proposal to remove the age 70 cap for private sector employees. This 1983 version of the legislation had the same thrust as Pepper's current bill to remove the mandatory retirement age (H.R. 4154), and enjoyed the support of 182 Members of the House before it died at the end of the session.

In subsequent years, increasing concern over rising deficits and lingering concern over the solvency of Social Security have generated strong bipartisan sentiment in favor of removing all obstacles to employment of older Americans. Such action is thought not only to be a way of improving conditions for older Americans, but for bolstering the coffers of the U.S. Treasury and the Social Security trust funds. During the 98th Congress, 16 pieces of legislation were introduced -- nine in the House and seven in the Senate.

More than seven years have passed since the 1978 Amendments to the ADEA. The Labor Department study mandated by those amendments was published in 1982, and supported the complete elimination of mandatory retirement, noting that this occurrence would result in a further increase in the labor force of approximately 200,000 elderly persons by the year 2000. While that might have seemed of marginal importance in the overall labor force, the study noted, the change would be of immeasurable benefit to those thousands of employees who want to remain employed. With that study, which stated that raising the permissible mandatory retirement age of 70 had no significant negative impact and that eliminating retirement would likewise cause no major problems. The way appeared cleared for Congress to remove the most visible symbol of age discrimination in the workplace.

STATES THAT HAVE ELIMINATED MANDATORY RETIREMENT

To date, thirteen States have enacted statutes specifically banning mandatory retirement for public and private sector employees (with exceptions). These States are: California, Florida, Georgia, Hawaii, Iowa, Maine, Massachusetts, Montana, New Hampshire, New Jersey, New York, Tennessee and Wisconsin. All but three of these States impose this ban on all employers. In addition, Alaska, Nevada, New Mexico, North Carolina, North Dakota and Vermont have abolished mandatory retirement contingent upon court interpretation of age discrimination statutes.

Nineteen other States have age discrimination laws that protect employees' right to work until age 70. These are Arkansas, Delaware, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Nebraska, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Utah, Washington, and West Virginia. However, 10 of those have a lower mandatory retirement age for public sector employees.

Five other States that have a mandatory retirement policy for public employees have an uncapped age discrimination protection statute for the private sector. They are Arizona, Colorado, Connecticut, Maryland and Michigan.

TABLE 1
STATE MANDATORY RETIREMENT LAWS: 1986

	Eliminates Mandatory Retirement	Notable Exceptions	Upper Age Limit for Mandatory Retirement	Eliminates Mandatory Retirement	Notable Exceptions	Upper Age Limit for Mandatory Retirement	Age Discrimination Protection	Upper Age Limit
Alabama	--	--	70*	--	--	--	--	None
Alaska	--	--	--	--	--	--	Yes	None
Arizona	--	--	70	--	--	--	Yes	None
Arkansas	--	--	70	--	--	--	Yes	70
California	Yes	1	--	Yes	--	--	Yes	None
Colorado	--	--	70*	--	--	--	Yes°	None
Connecticut	--	--	70*	--	--	--	Yes	None
Delaware	--	--	70*	--	--	--	Yes	70
Florida	Yes	2	--	Yes	--	--	Yes°	None
Georgia	Yes**	1	--	--	--	--	Yes	70
Hawaii	Yes	--	--	Yes	--	--	Yes	None
Idaho	--	5	--	--	--	--	Yes	70
Illinois	--	5	--	--	--	--	Yes	70
Indiana	--	5	--	--	--	--	Yes	70
Iowa	Yes	--	--	--	--	4	--	Yes
Kansas	--	--	--	--	--	--	Yes	70
Kentucky	--	--	65	--	--	--	Yes	70
Louisiana	--	--	70*	--	--	--	Yes	70
Maine	Yes	--	--	Yes	--	--	Yes	None
Maryland	--	--	70	--	--	--	Yes	None
Massachusetts	Yes	--	--	Yes	--	--	Yes	None
Michigan	--	--	70*	--	--	--	Yes	None
Minnesota	--	--	70*	--	--	70	Yes	70
Mississippi	--	--	70*	--	--	--	--	None
Missouri	--	--	70***	--	--	--	--	None
Montana	****	--	****	--	--	--	Yes	None
Nebraska	--	--	70	--	--	--	Yes	70
Nevada	--	--	--	--	--	--	Yes	70
New Hampshire	Yes	--	--	Yes	--	--	Yes	None
New Jersey	Yes	--	--	Yes	--	--	Yes	None
New Mexico	--	--	--	--	--	--	Yes°°	None
New York	Yes	1	--	Yes	--	--	Yes°°	None
North Carolina	--	--	--1	--	--	--	Yes	70
North Dakota	--	--	--	--	--	--	Yes	70
Ohio	--	--	70	--	--	--	Yes	70
Oklahoma	--	5	--	--	--	--	--	None
Oregon	--	--	70	--	--	--	Yes	70
Pennsylvania	--	--	--	--	--	--	Yes	70
Rhode Island	--	--	70	--	--	--	Yes	70
South Carolina	--	--	70*	--	--	--	Yes	70
South Dakota	--	--	--	--	--	--	Yes°	70
Tennessee	Yes	3	--	--	--	--	Yes	70
Texas	--	5	--	--	--	--	Yes	70
Utah	--	--	--	--	--	--	Yes	70
Vermont	--	--	--	--	--	--	Yes	None
Virginia	--	--	70*	--	--	--	--	None
Washington	--	4	--	--	--	--	Yes	70
West Virginia	--	--	70*	--	--	--	Yes	65
Wisconsin	Yes	--	--	Yes	--	--	Yes	None
Wyoming	--	--	65*	--	--	--	--	None

NOTABLE EXCEPTIONS:

[1]Lower for certain public safety personnel (firefighters, police and other law enforcement personnel.
[2]Protects State employees only to age 65.
[3]Has a variety of exceptions.
[4]70 is the earliest compulsory retirement age that can be set.
[5]No general mandatory retirement, but has for specific classes of workers.

*Denotes lower age for certain public safety personnel.
**Municipalities may set a mandatory retirement age.
***A variety of ages, depending on municipality size.
****The State Supreme Court has interpreted age discrimination statutes to prohibit mandatory retirement.
*****In some States, the courts could decide that State age discrimination statutes prohibit mandatory retirement.

oOnly in State employment.
ooHas broad exemptions.

NUMBER OF WORKERS AFFECTED BY MANDATORY RETIREMENT

Labor Department data indicate that 51 percent of workers age 40 to 69 face a retirement age, usually 70. Thus, more than 20 million workers could be forced to retire simply because of their age. Most of these workers, however, will leave the labor force before they reach the mandatory retirement age, which means that many fewer workers are directly affected by such policies. If mandatory retirement were abolished, according to the most recent Labor Department statistics available, an estimated 195,100 more older men (no estimates were made of the number of women) would be in the labor force in the years 2000 than if mandatory retirement policies remained as they are today.

Mandatory retirement policies are implemented at the whim of employers and tend to be most prevalent among larger firms. A 1981 study of 1,600 firms by Portland State University found that only 7 percent of small firms (20-49 employees) had a mandatory retirement age, compared to 60 percent of large firms (500 or more employees).

A 1984 survey of 363 companies by The Conference Board, an economic and management research organization, confirmed this finding. According to the results of that study, although mandatory retirement has been rescinded entirely in many large companies, it is still more prevalent among the largest firms (those with 25,000 or more employees), where 79 percent of the companies had mandatory retirement.

The Conference Board report revealed that three-fifths of companies surveyed have mandatory retirement at age 70, but that 40 percent of these respondents indicated that there were exceptions to this policy. The exceptions fell mainly into two categories: (1) employees who live in states that have eliminated mandatory retirement entirely; and (2) mandatory retirement was at age 65 for those high-level executives with lifetime pensions of at least $44,000 annually. (The 1978 Amendments to the Age Discrimination in Employment Act permit mandatory retirement at age 65 for that classification of employees.)

Interestingly, while the survey revealed that the vast majority of corporations responding continue to encourage early retirement, the decline in labor-force participation rates of people aged 60 or more has slowed considerably in recent years. This change comes after a dramatic quarter-of-a-century decline in such participation.

The presence of a mandatory retirement policy contributes indirectly to earlier retirement even before age 70. The Labor Department found that workers with no mandatory retirement age planned to retire on average at age 64, compared to age 62 for those with a mandatory retirement age. Thus, the presence of a mandatory retirement policy may provide a signal to older workers that they should shorten their worklives. Another explanation for the early retirement tendency among workers facing mandatory retirement is that larger firms are more likely to have both mandatory retirement and better pension plans with lucrative early retirement inducements.

Relatively few older workers are actually mandatorily retired because financial inducements, poor health or societal expectations cause most workers to retire early, that is, before age 65. For example, 70 percent of all new Social Security beneficiaries leave the labor force and begin collecting their benefits before age 65. Additionally, the Labor Department study on mandatory retirement found that only 6 percent of older workers had co-workers who had retired after age 65.

PUBLIC ATTITUDES ABOUT MANDATORY RETIREMENT

According to a 1981 Harris poll, nine out of 10 Americans agreed that "nobody should be forced to retire because of age, if he/she wants to continue working and is still able to do a good job." A check of the literature by the Subcommittee reveals that sentiment against mandatory retirement remains strong and it is not limited only to older people. Americans of all ages are equally likely to oppose such discriminatory policies.

On February 10, 1985, renowned economist John Kenneth Galbraith addressed the issue of mandatory retirement in an article entitled, "When Work Isn't Work," in Parade magazine. In his piece, Mr. Galbraith made several important points:

(1) There is no fixed limit on the number of employable men and women in the economy;

(2) We should not accept the common argument that retirement is necessary to make room for younger newcomers;

(3) Nothing is more certain than that the disabilities of age come with great irregularity as between different individuals; and therefore

(4) A set retirement age is really a way of avoiding difficult individual judgments by imposing a harsh arbitrary rule on all.

Mr. Galbraith also looked at different kinds of work: "real work," or the "hard, tedious, physically or mentally debilitating thing;" and "enjoyed work," or "that kind of activity one would willingly do without pay," and "that is meaningful and personally self-fulfilling."

For our really important jobs, including those of legislators, judges, high-level business executives, and the President of the United States, Galbraith notes, we reject the idea of a fixed retirement. The same is true for artists, scientists, other scholars, and politicians. Yet, those who perform "real work" -- picking fruits and vegetables, cleaning streets, staffing a sweatshop, for example -- should be given the reward for real work, which is the opportunity to retire at a relatively early age, "almost certainly by the late 50s," Galbraith posited.

In response to Galbraith's article, Congressman Claude Pepper, Chairman of the Subcommittee on Health and Long-Term Care, the address of which was listed at its conclusion, was deluged with mail. The nearly 1,000 letters from all over the country revealed a spectrum of experiences with retirement, and many letters from persons nowhere near retirement age, who merely wanted to share their views. Most, however, were from older Americans who either had already retired or were anticipating retirement in the near future.

The overwhelming majority of these letters favored the elimination of mandatory retirement. The quotations below, reflections on the effects of retirement upon the individual, are culled from that mail:

-- "Workers should not be forced to retire because of age, but that each individual who has the mental and physical capacities should be allowed to participate in the work force with honor and dignity," wrote a student of social welfare at New Orleans' Southern University.

-- A young woman from Alexandria, Virginia, wrote, "I am just out of law school and very far from thinking seriously about retirement. But Professor Galbraith's article is so disconcerting that it prompted me to write this, my first letter to a Congressman. I think his ideas are very sound and deserve your Committee's immediate and active attention."

-- One gentleman wanted Congressman Pepper to know, "The young may be our greatest national resource, but the senior members of our society are the foundation. From their experiences comes (sic) real wisdom."

-- "I believe that we should not have a set retirement age. Many of the older people in our country still have so much they can give and want to give. We should welcome with open arms anyone who wants to work for as long as h/she can and is able," contributed a Greenville, South Carolina woman.

-- A woman who is a psychiatrist in Jackson, Mississippi, wrote, "With a healthy aging population, serious financial problems with social security and Medicare reimbursement, it seems to me that enforced retirement is positively ridiculous, and that retirement should be based, as he (Galbraith) points out, on productivity and the personal satisfactions associated with work, as well as the likelihood of relative productivity based on these factors as aging occurs."

-- A writer from Virginia had this enthusiastic message: "On behalf of my 84 year old mother and myself, I wish to voice our opinions in response to Parade magazine article on February 10, 1985. Please add our votes to the affirmative on Prof. Galbraith's recommendations. Yes! Yes! Yes!"

Even as mail received by the Subcommittee showed strong opposition to the concept of mandatory retirement, it is also true that an ever-increasing number of employers share that sentiment.

In a 1981 nationwide survey of employer attitudes, 51% of employers agreed that "mandatory retirement should be abolished by the end of this decade." Since that time, employment agencies that deal specifically with the placement of older workers have become more common, partly to aid the workers themselves but also to meet a growing demand for the experience and skills of older workers. One such agency, Operation Able

in Chicago, states, "The graying of America means that employers who wish to keep their business expanding will have to employ older workers, because there will not be enough younger workers to go around. So it is in the best interest of the business community to begin now to find ways to utilize older workers. They can be valuable partners in working toward your company's objectives, from short-term crisis management to long-term strategic planning."

More and more employers are taking note of the experience, skills, reliability and flexibility that older workers bring to a position, as the following examples illustrate:

-- A Lockheed Corporation branch office in California needed experienced workers to fill selected job slots, but was unable to get the ones they needed due to an acute labor shortage. They surveyed 4,000 of their recent retirees and found that more than 25% wanted to return to work. After instituting a crash hiring program to utilize these valuable workers, this company is now looking into rehiring retired engineers to alleviate a similar labor shortage.

-- Wave III, a New York-based corporation, grew weary of training computer programmers, only to have them accept a better job somewhere else. By training older persons (the first training class had an average age of 64), the company now has a reliable pool of programmers with wide flexibility of workload and hours. The program will soon be expanded.

-- John Deere Company considers its older workers such a valuable resource that it permits them to work 20-80% of the full-time work week, and to draw on a portion of their pension benefits to make up the difference in salary.

-- The Travelers Insurance Companies of Hartford, Connecticut, created its own job bank for retired employees, listing the temporary positions available with the company. Employees can work almost half-time with no loss in their retirement income from the company.

-- Continental Bank hired nearly 100 older persons to work in a check processing center where they previously had been plagued by a very high employee turnover rate in the 24-hour-a-day work environment. Since then, supervisors in other divisions have requested the placement of older workers in their units, because the seniors provide good role models and they have stabilized the round-the-clock work force.

Although the above examples point to solutions to the problem of forced retirement, and are a testimonial to the value of older workers, they should by no means be seen as the only solution. As former U.S. Senator Charles H. Percy of Illionis observed in 1982, there are several aspects to permitting all persons of all ages to continue working and feeling useful:

> Our goal is to insure that any person who wants to work is not denied that opportunity because of his or her age. To reach this goal we must adopt a comprehen ive approach designed to promote opportunities for older workers. Ending mandatory retirement is the logical place to begin. It will signal our intention to eliminate all barriers to the full participation of older workers. Employment should and must be an option for all ages.

THE IMPACT OF MANDATORY RETIREMENT ON THE INDIVIDUAL

Transition and loss, the two most devastating type of life adjustments, are curiously those for which the American individual receives the least preparation. Forced to rely suddenly on inner resources, the average person is not adequately prepared to successfully respond to forced changes in his or her lifestyle. Mandatory retirement is the forced termination of an individual's role, and represents the loss not only of that role, but of responses, purpose, and income.

Although some workers look forward to retirement, the majority do not, especially those who still need a regular income. For these people, many with work histories of 40 or 50 years, retirement is deemed one of the 8 most stressful life events.

For those elderly who desire to work, unemployment creates serious problems. Older workers who lose their jobs stay unemployed longer than younger workers, suffer a greater earnings loss, and are more likely to give up looking for another job than those in other age groups.

Recent American studies show that the individual benefits more from activity, both physical and mental, than inactivity, and from useful work more than empty leisure. A survey performed several years ago established that work contributes to a sense of physical and material well-being, giving workers a feeling of usefulness.

Mandatory retirement costs the United States very much. Besides being a drag on the economy, removing from the workforce persons who could be contributing to their own economic support as well as to the U.S. Treasury and to Social Security funds, it wastes human potential. The quotations below are again taken from mail received by the Subcommittee on Health and Long-Term Care in response to a Parade magazine article by John Kenneth Galbraith, published February 10, 1985.

The Economic Effects of Retirement:

-- A senior citizen from Houston, Texas, wrote, "In my case it is absolutely necessary that I continue to earn until age 78. I began to earn my living at 56 and must continue to 78 to have enough money for the rest of my life expenses. It would relieve me greatly if I could know that I didn't have to scrounge for work after forced retirement in 1986 from the University of Texas where I now work."

-- "I have no quarrel with those who wish to retire at 65, or even earlier if they so desire. However, I strongly feel those like myself should have not only the legal opportunity, but also some incentive to continue active employment as long as we desire." The author is a 64-year-old man from Neenah, Wisconsin.

The Emotional Effects of Retirement:

-- A man from Palos Verdes Estates, California, told of the pleasure he derived from work. "I am 69 years old and I have a good job as an aerospace engineer which I enjoy. I believe I am making a useful contribution to our society. I don't want to retire at 70."

-- An 82-year-old woman who works as a social secretary for two New York City women writes, "Mr. Galbraith is right -- a person should not stop working as long as God give him or her good health. It does keep one young to have something to do."

-- A 44-year-old man from Lompoc, California, relates the different roles work plays in people's lives, and the value of a meaningful vocation. "I am a 44 year old ironworker that has suffered numerous physical injuries over the past 25 years but I must endure 21 more years to qualify for my union's pension and social security. By contrast, an acquaintance of mine is an 80 year old engineer who was forced to leave his job 15 years ago. Another company was waiting in the wings to tap his reservoir of experience and he is still very actively working for them. If he were forced to shut down his mind even now, much less at 65, it would be his death warrant."

-- Another California resident writes, "I think the government should consider this (the Galbraith article). I myself am 88 years old and am still working 2 days at my trade as shoe salesman, which started 55 years ago and still like it. There should be no age limit in this matter." Then a personal message to Congressman Pepper, "Do something about it, Claude!!!"

The Physical Effects of Retirement:

-- "Our mind and body work together in miraculous ways and if we cut off the activites of one, we curtail the other," contributed a 57-year-old Louisiana woman.

-- One respondent contributed a short phrase packed with meaning: "When a man retires, he expires."

-- A 31-year-old Oregon woman told the moving story of her grandmother, who was forced to retire at age 65. By the age of 75, she had undergone extensive treatment for a ten-year illness for which physicians can find no physical cause. The granddaughter observed, "This woman, had she not been cast aside from the stream of productivity into an unwanted life of leisure, would have had much to offer her world."

THE IMPACT OF UNCAPPING THE ADEA

On older workers:

Uncapping the Age Discrimination in Employment Act (ADEA) would add approximately 840,000 workers age 70 and over to the 28 million workers (aged 40-70) now covered by the Act. This would be a three percent increase in the number of individuals protected against age discrimination in employment.

Of course, not all persons whom the law would permit to enter or remain in the workforce would choose to do so. According to Labor Department statistics, eliminating mandatory retirement would result in 195,100 more older men in the labor force by the end of the decade. Almost half (90,300) would be in the 68-70 age group. Thus, eliminating mandatory retirement has an effect on workers who have not yet reached the compulsory retirement age.

On the economy:

Increasing the labor force participation rates of older workers would have a beneficial effect on the economy, Social Security and government revenues. According to a 1985 study by Mercer-Meitinger, an actuarial firm, approximately $800 million is generated in savings for every 50,000 older workers retained in the workforce. It follows, then, that over $3 billion in revenue would be gained by the elimination of mandatory retirement.

On business:

The Labor Department's studies indicate that business adapted quite easily to the 1978 ADEA amendments raising the permissible mandatory retirement age from 65 to 70. These same studies conclude that eliminating mandatory retirement altogether would have no greater impact on people remaining in the workforce than raising the age to 70. More importantly, many employers believe costs are lower for older workers. One third of older workers in larger firms have employers who believe costs will decrease if older workers remain on the job.

On women, minorities and youth:

The Labor Department found that the rise in permissible mandatory retirement age to 70 resulted in only negligible effects on women, minorites and youth, and that abolishing mandatory retirement would have a similarly minimal impact. According to the Labor Department, "The estimated additional number of comparable age-65 workers are potential competition for less than one-quarter of one percent of all full-time workers ages 16-19; less than one-half of one percent of all full-time black workers ages 16-59; and around one-tenth of one percent of all full-time female workers ages 16-59."

On opportunities for promotion:

Again, the Labor Department studies refute the idea that an increased number of older workers would significantly delay promotions for younger workers. One study reports that a ten percent increase in the labor force participation rates of men age 65+ (twice the projected impact of eliminating mandatory retirement) would delay, on average, promotions at the highest ranks by only one-half year, while at the lower ranks individual promotions would be retarded by approximately five to ten weeks. These are insignificant effects, especially when weighed against the harmful consequences of forced retirement based on age.

SUMMARY

Under current law, mandatory retirement policies apply to more than half of America's older labor force. Public opinion is clearly opposed to such policies, 12 States have already abolished mandatory retirement, a significant percentage of prominent American companies have no mandatory retirement age, and there is growing bipartisan support in Congress to enact legislation ending age bias in the workplace.

Mandatory retirement has been shown to have devastating effects on individuals' mental and physical health, and spells severe economic loss for many older people who cannot afford retirement. Abolishing mandatory retirement would increase the labor force by 195,100 by the year 2000, would add needed revenue to the U.S. Treasury and to Social Security, would not adversely affect business, and would create no significant

additional hardship for younger workers, women or minorities.

Many experts consider the removal of the upper age limit of 70 from the ADEA the most effective way to abolish mandatory retirement. This action, which could be accomplished with passage of Congressman Claude Pepper's bill, H.R. 4154, would stamp out once and for all the fires of age discrimination. Such an action would offer a new hope to older workers who are desperate to maintain their independence and dignity. Evidence from many sources points to the need to act swiftly to eradicate the remaining vestiges of age bias in the workplace. Just as race and sex are no indicators of competence or employability, so should age never be used as a determinant of one's worth.

Mr. PEPPER. Now, we have found that it makes great economic sense to allow people to keep on working if they are ready, willing, and able to do so and disposed to do so.

We found that from a study of the Department of Labor that 195,000 people would probably be added to our workforce by the year 2000, saving over $3 million in increased revenue from their earnings.

We found there is rather strong support in the public domain of opinion. For example, Mr. Harris conducted a poll in 1981 in which he found that 9 out of 10 Americans opposed mandatory retirement on account of age.

We also found that the distinguished economist, John Kenneth Galbraith, wrote an article on the subject in Parade magazine and our committee got 1,000 letters in response to that article in favor of the concept that was aired there that we should abandon the idea of allowing mandatory retirement on account of age.

In 1981 there there was a poll among employers—51 percent of them said that they thought at least by the end of the decade we should have the abolition of this concept of mandatory retirement on account of age.

The argument generally used in favor of retaining the mandatory retirement policy on account of age is that we bar the benefit of promotion of younger workers. It is now known from studies that have been competently undertaken that as a matter of fact at the highest level, the delay would not be beyond half a year to younger workers, if you allow the older workers to keep on working.

And among the lower workers, the delay would not be over 5 to 10 weeks.

So, there is no great harm to be done to younger workers.

Now here is what I think we can do about mandatory retirement. I will just read three letters here that have been written to us.

For example, a California resident wrote: "I myself am 88 years old and am still working 2 days at my trade as shoe salesman, which started 55 years ago and still like it. There should be no age limit in this matter. Do something about it, Claude." It was a letter to me.

Another letter, a 64-year-old Wisconsin man facing forced retirement wrote: "I have no quarrel with those who wish to retire at 65, or even earlier if they so desire. However, I strongly feel those like myself should have not only the legal opportunity, but also some incentive to continue active employment as long as we desire."

And yet another elderly woman wrote: "Our mind and body work together in miraculous ways and if we cut off the activities of one, we curtail the other."

And one respondent stated: "When a man retires, he expires."

You would think that there never would have been such a doctrine, at least admitted within the bounds of legality, to tell people that there is nothing wrong with them and no fault in their performance, that because they have reached an arbitrary age, because the Lord has been good them and they have reached a creditable old age, that they have to quit work.

Some say the practice of mandatory retirement started with Bismarck, who recognized in his social security system 65 as the critical age, because they said that at that time people generally didn't live beyond 65.

Today it is nothing to see people in the nineties. My subcommittee at one time had a hearing, we had seven witnesses, each one of them was over 100. A lady of 100 was the youngest. A black man who had been a railroad locomotive fireman was 112, the oldest. They all came and testified before our committee. Afterward they went over to the dining room and had a pleasant lunch with me. Some of them shared my practice of having a glass of wine. We told stories and had a delightful conversation. When the lunch was over, they went back home. All of them were over 100.

We have had before our subcommittee a number of occasions witnesses approximating 100, 98, or 95 of age.

Now we are talking about a serious matter. I believe that there is going to be sort of a renaissance among the retired people of this country into a new period of activity and contribution.

If I may say so, Mr. Chairman, I was in New York not long ago attending a meeting, international in character in respect to the elderly. Afterward, they gave us a lovely dinner at one of the hotels. I sat by a banker. A New York banker. We had a very pleasant visit.

Two weeks after that, the banker called my office and said he would like to come down and see me. We arranged the appointment. He came down and I said, "Well, I am delighted to see you again. I enjoyed our little visit at the dinner, is there anything I can do for you." "Well," he said, I remember our conversation very well. You may be surprised at why I am here." He said, "I am going to retire from my bank, I wanted to get your opinion as to what I should do with the rest of my life."

Two weeks later at a dinner in Miami, I met another gentleman and I happened to tell that story. He said, "I am almost in the same situation, I have just retired as vice president of Chrysler Motor Co., I too am beginning to look around. How am I going to spend the rest of my life?"

Those people who are out there retired were not long ago running America. Think of what competence, what knowledge, what experience they have had. Think of the dreams that they have made come true.

I don't think they are to be cast off and not allowed an opportunity to keep on making such contribution as they want.

If they want to switch from one occupation to another, they should have the training that would enable them to do so. If they

want to upgrade their skills, they should have the training necessary to do that.

What we are talking about is a human right to make a living. We don't allow anybody to be denied the right to make a living because of sex, as we used to. We don't allow anybody to be denied the right to make a living because of race, as we used to.

We have now seen the irrelevance of those two characteristics to the employability of an individual. And yet we have carried on something of this myth.

I have the good fortune today to be sharing this hearing with the very distinguished chairman of the Subcommittee on Employment Opportunities of the Education and Labor Committee on the House of Representatives. In turn, he serves under a very distinguished chairman, the Honorable Gus Hawkins.

That was the committee which, in 1978, carried forward the legislation that has made the improvements in this program which I referred to a few moments ago, and I just want to express publicly to the Honorable Matthew Martinez, chairman of this subcommittee, my cochairman here today, my gratitude for his effort in helping us move forward.

We are deadly serious about this compelling need. Somebody has got to look after people. Or, wouldn't it be better to let people look after themselves? And if they wish to do so and are ready, willing, and able to do so, let people keep on working at whatever they are experienced to do.

So, I am delighted to have here as my cochairman, the Honorable Matthew Martinez, and we are most grateful to you, Mr. Martinez, for the fine leadership you have given in this cause here before us.

Mr. MARTINEZ. Thank you very much, Mr. Pepper.

Of course, as the chairman has explained already, we are holding a joint meeting here of his subcommittee and mine to look at this overall issue of mandatory retirement, the ceilings under which the Age Discrimination in Employment Act is administered by the Equal Employment Opportunity Commission.

As I sat here listening to Mr. Pepper, a lot of things conjured up in my mind. And one particular thing that he stirred in my memory was an incident that happened to me some time ago when I was president of the rotary club in Monterey Park.

We had two gentlemen, and although I never really thought about their age, they were beyond mandatory retirement age. I guess the reason I never thought about it was because they were as active as anyone else in the club.

On this one particular occasion, we were painting a building which we were converting to a senior citizens center. As we were painting, the old building with its adjacent shuffleboard part in full view of where we were working. Barney Barris and Houston were painting along the building and they got to talking about the people that were playing shuffleboard, and Barney Barris said to Houston, he said, "Houston, how old do you think that one gentleman would be with the shuffleboard shover, whatever it is called, in his hand?" And Houston said, "Oh, I imagine he is around 62, 63."

And one of the other people that was working that happened to know that gentleman said, "No, he is only 60." And he said, "Well, how about that other gentleman that is playing there with him," and he said, "Oh, he is 71."

And with that, Houston turned to Barney and he says, "You know, both of us are quite a bit older than either one of them, why are we here working and they are over there playing shuffleboard."

And I guess the message is, the men over there felt they wanted to retire and could retire; Houston and Barney decided they wanted to work and were engaged in their own businesses. Of course, they are not going to be forced to retire because they reach 70, but as active as they are and were—and both of them still are very active—I imagine that there are a lot of people in private industry that are forced out by mandatory retirement when they do not want to be.

And I guess the law that Mr. Pepper is putting forth in his bill is simply saying that a person can't be forced to retire when he still wants to work. But, of course, there are going to be those that want to retire and will retire at a certain age. And that is simply all, I think, that Mr. Pepper is trying to do.

While a person feels he is still useful and productive, he should be allowed to work.

Just yesterday in my office I was visited by a gentleman from a beer distributing company in my district and I was thinking about this meeting, so I asked him, "By the way Jim, how old are you?" He said, "73, why?" I said, "Well, don't you feel like retiring?" "I enjoy going to work," he said, "I get my vacations and time when I can enjoy myself and the weekends when I do the things I want to do. But every day of the week, I would die if I didn't have a job to go to because I enjoy working, and that would be whether I was working for somebody or in business for myself."

So, I guess that tells a story, too.

Studies have shown that nothing is going to be hurt by the fact that you allow people to work until they feel they can't work any longer, but they choose to retire on their own volition.

Many opponents of this bill will profess and debate that this is going to hurt the younger workforce, and I don't believe that. I think other studies have shown quite the opposite results.

But I think that it is something that has to be debated before we can encourage enough people to vote for the bill, and that is the purpose of this meeting, especially to hear from those people who have personal experiences with this particular situation.

I notice one of the people testifying here speaks about his age in the beginning of his testimony, and I think that in itself is testimony.

So, we will proceed now, if it is all right with you, Mr. Pepper, to the first panel, and the first witness on that panel, Dr. Arthur Flemming.

Dr. Flemming, would you please give us your testimony?

STATEMENTS OF DR. ARTHUR FLEMMING, CHAIRMAN, CITIZENS COALITION FOR CIVIL RIGHTS, FORMER SECRETARY OF HEALTH, EDUCATION AND WELFARE; T. FRANKLIN WILLIAMS, M.D., DIRECTOR, NATIONAL INSTITUTE ON AGING, NATIONAL INSTITUTES OF HEALTH; EUGENE SILBERMANN, M.D., NEW YORK CITY; JOSEPH QUINN, PH.D., PROFESSOR, DEPARTMENT OF ECONOMICS, BOSTON COLLEGE; AND ERLING JOHNSON, FORMER MINNESOTA COMMISSIONER ON EDUCATION, REPRESENTING THE AMERICAN ASSOCIATION OF RETIRED PERSONS

Dr. FLEMMING. Thank you very much, Congressman Martinez and Congressman Pepper. I appreciate very, very much the opportunity of appearing before both of you in support of H.R. 4154.

As Congressman Pepper knows, I have been supportive of the objective of H.R. 4154 over a considerable period of time.

My first contact with this issue was back in 1939 when I was serving as a member of the U.S. Civil Service Commission.

In those days, when a career employee in the Federal Government desired to work beyond the age of 70, it was necessary for him to submit a request to the President through the Civil Service Commission. And the Civil Service Commission would have to consider the request and decide whether to recommend to the President an extension of his period of service.

As I had the opportunity of considering those requests along with my two colleagues, I reached the conclusion that the policy that was being followed just didn't make any sense.

Some years later, when I reached the age of 70, I was serving as U.S. Commissioner on Aging, and my services would have been terminated if the President of the United States had not been willing to extend my services for 1 year. They wouldn't go any longer than that, you know, at that particular time.

So, my services were extended for 1 year, and then when that year expired, why, my period of service was extended for still another year.

As a result of the leadership of Congressman Pepper and Congressman Martinez and others, that situation has been corrected, as Congressman Pepper has pointed out in his opening remarks, as far as the Federal service is concerned.

Federal employees are not confronted with a compulsory retirement policy by reason of age.

As I served as U.S. Commissioner on Aging over a period of 5 years, I had the opportunity of meeting with a good many older persons throughout the country. I had the opportunity of listening to them, and I felt that I did identify certain messages that older persons were trying to convey to our Government. And suddenly, one of those messages was, we want to continue to be involved, we don't want to be put off the job. And time and again, as they conveyed that message, they would indicate very clearly that they recognized that noninvolvement on their part would lead to a rapid mental, physical, spiritual deterioration.

They also felt that they were in a position to render a rather unique service to our Nation based on their years of training and their years of experience.

Consequently, as I listened to them, I became more convinced than ever that as a nation we should get rid of this policy of mandatory retirement on the basis of age without regard to the merits of the individual case.

I believe that that policy is a policy that is in direct conflict with our concept of the dignity and worth of each individual.

I agree with you, Congressman Pepper, that it is an act of discrimination.

We talk about racism, we talk about sexism, and I have devoted a good deal of my life to dealing with those "isms." But there is such a thing as ageism, discrimination which is based on the fact that a person has reached a particular age. And certainly we should eliminate, as far as our Nation is concerned, we should eliminate in the interest of the individual so as to give the individual the opportunity, if he so desires, to continue to contribute to the life of our Nation.

We should eliminate it in the best interest of our Nation so that our nation will receive the benefits of the contribution that the individual is making.

I appreciate very, very much the report that your staff has prepared on this issue. I have had the opportunity of reading that report. It is an excellent summary of the situation.

I was very much interested in the comments in the report on the article which Dr. Galbraith wrote on this subject and the reaction to that article.

And I was particularly interested in the point that he made in that article that nothing is more certain than that the disabilities of age come with great irregularity as between different individuals, and therefore a set retirement age is really a way of avoiding difficult individual judgments by imposing a harsh, arbitrary rule on all.

I time and again have said that I felt that a policy that requires retirement at a given age without regard to the merits of the individual case is simply a lazy person's device for dealing with what sometimes is a difficult personnel situation.

But those difficult personnel situations should be dealt with on an individual basis, on the merits of each individual case. And this policy is a policy that substitutes for individual consideration of these cases an arbitrary and capricious rule, and we should and must get rid of it.

You commented on some of the objections that are raised from time to time to elimination of this policy, particularly its effect on the employment of women, minorities and youth. I have ran into that time and again as I engage in discussions on this issue.

And in your report you point out the fact that the Labor Department's study found that the rise of the permissible mandatory retirement age to 70, for example, resulted in only negligible effects on women, minorities and youths, and that abolishing mandatory retirement would have a similarly minimal impact.

According to the Labor Department report, the estimated additional number of comparable age 65 workers are potential competition for less than one-quarter of 1 percent of all full-time workers age 16 to 19; less than one-half of 1 percent of all full-time black

workers ages 16 to 59; and around one-tenth of 1 percent of all full-time female workers age 16 to 59.

They also dealt with the question of what impact a policy like this has on opportunities for promotion. And again, the Labor Department study refuted the idea that an increased number of older workers would significantly delay promotions for younger workers.

One study reports that a 10-percent increase in the labor force participation of men age 65 and above would delay, on an average, promotions of the highest ranks, as you pointed out earlier, by only one-half year, while at the lower ranks, individual promotions would be retarded by approximately 5 to 10 weeks.

These are insignificant effects, especially when weighed against the harmful consequences of forced retirement based on age, something that there isn't any question at all in my judgment but that the elimination of this policy will have a positive effect as far as the older persons are concerned and that that in turn will have a positive effect on the life of our nation.

And I hope that at long last we can get rid of that cap, eliminate it completely, and get rid of compulsory retirement. It is an unsound policy looked at from any point of view.

Mr. PEPPER. Fine, Doctor.

Mr. MARTINEZ. Thank you very much, Dr. Flemming.

We will next hear from Dr. Williams.

Dr. WILLIAMS. Thank you, Mr. Martinez and Mr. Pepper.

I am Dr. T. Franklin Williams, Director of the National Institute on Aging of the National Institutes of Health.

I thank you for the opportunity to present information relating to mandatory retirement. My remarks will address the medical and scientific evidence relative to this issue.

I would like to submit my written testimony for the record, if I may, and supply some highlights now.

Mr. MARTINEZ. All of the written testimony supplied by the witnesses will be entered in the record in its entirety, and you may summarize.

Dr. WILLIAMS. Thank you.

Recent advances in medical technology and in scientific research on aging provide us with considerably more knowledge and understanding about health and effective functioning in later years, into the seventies and eighties, than we had even a few years ago.

Such new research demonstrates that, in the absence of disease conditions, functioning in the various organ systems can be maintained at high levels into these later years. Let me cite just a few examples.

First, in terms of the function of the heart, our scientists at our Gerontology Research Center in Baltimore have re-evaluated heart function in healthy volunteers enrolled in the Baltimore longitudinal study of aging, which has been in progress now for 28 years.

In this reevaluation, they have used stress tolerance tests to look for evidence of coronary heart disease, using both the electrocardiogram and the new technology of thallium scans, which can show changes in the heart muscle that might indicate even subtle damage.

In their study of these healthy volunteers spanning the ages from their twenties up into their eighties, our scientists have found

that about half of them in the seventies and eighties have some evidence of coronary artery disease.

However, in the remaining 50 percent without such disease, they found that the heart output achieved on the exercise tolerance test was in exactly the same range as in the younger subjects from the age 20 on up.

That is, in the absence of any evidence of coronary artery disease, there was no evidence for any decline with age in heart function, either at rest or during the standard exercise tolerance test.

They have also found that this type of approach provides predictive information about the future likelihood of any episodes of acute heart disease.

I have included a table in my written testimony which shows their results, including people in their seventies who were normal on these tests and who had a very low incidence of heart attack over the next 4 years, a far lower incidence, about 2 percent, than would be true of men in the working years of their forties who are unfortunate enough to have high blood pressure and smoke. Those men would have a far greater likelihood of a heart attack in the next 4 years than this group in their seventies and eighties.

These results show that in many people in their seventies and eighties cardiac function is and will be maintained in the same range as in younger people.

A second essential organ for maintenance of health and mental functioning is, of course, the brain.

In contrast to earlier cross sectional studies of performance on intelligence tests, recent studies of a longitudinal nature—the earlier studies showed some decline with age, but the recent studies of a longitudinal nature, in which subjects are their own control, showed that in nearly 80 percent of the subjects there was little or no decline, at least out as far as age 80, and that is as far as these particular tests were carried.

Furthermore, in measuring brain function in our Laboratory of Neurosciences in Bethesda, using the positron emission tomography scan, or PET scan, measuring brain metabolism, we find that brain metabolism is well maintained without changes again out into the eighties in healthy older people.

Another example of organ function relates to the kidney. A recent summary of the longitudinal studies on kidney function in our healthy volunteers in Baltimore show that there is no deline in kidney function with age in about 35 percent of the subjects. In the other 65 percent there is a variable amount of decline. But the important point here is that many individuals maintain effective kidney function into very late years.

In this case, as in all of the others, it is essential to consider the health status of each individual rather than to make arbitrary assumptions about changes with age alone.

Not only may function be well maintained into late years, but it can also improve with the use of exercise.

Recent studies in St. Louis in men and women in their sixties to nineties, who were previously sedentary and undertook a regular fitness regimen, showed the same kind of improvement in function and in various measures of body health as is true in younger people.

I don't want to leave the impression that there are no changes with aging or that we begin to know all that we would like to know or ought to know in this field. We do know that there are changes in the connective tissue with aging, and we know that the responses of organs to hormones change. But these are quite variable. Again, each individual is somewhat different from another person.

We are just beginning to learn about the role of genes in the influence on aging, a very important area of research.

We also have to keep in mind that many older people acquire chronic diseases that limit their functional capacities. For example, over the age of 65, approximately 45 percent of people report some degree of arthritis. And there are other important conditions like decline in vision and hearing in a number of people.

But these conditions all begin and are often present well before the age of 65 or 70, and they need to be taken into consideration in determining the functional capacity of each individual, in relation to whatever job or role in life is being considered by or for that individual, rather than an arbitrary age.

In summary, recent research confirms what has been concluded from earlier studies, namely, that there is no convincing medical evidence to support a specific age for mandatory retirement. Rather, each person, each situation should be considered on its own merits.

Thank you.

Mr. MARTINEZ. Thank you, Dr. Williams.

[The prepared statement of Dr. T. Franklin Williams follows:]

PREPARED STATEMENT OF T. FRANKLIN WILLIAMS, M.D., DIRECTOR, NATIONAL INSTITUTE OF HEALTH, PUBLIC HEALTH SERVICE, DEPARTMENT OF HEALTH AND HUMAN SERVICES

Mr. Chairman and Members of the Committee, I am Dr. T. Franklin Williams, Director of the National Institute on Aging (NIA). I thank you for the opportunity to present information relating to mandatory retirement. My remarks will present information concerning the medical and scientific evidence relevant to this issue.

Recent advances in medical technology and in scientific research on aging provide us with considerably more knowledge and understanding about health and effective functioning in later years -- into the 70s and 80s -- than we had even a few years ago. Such new research demonstrates that, in the absence of disease conditions, functioning in the various organ systems can be maintained at high levels into these later years. Let me cite selected specific evidence.

First, in terms of the function of the heart, Dr. Edward Lakatta and his colleagues at the Gerontology Research Center of the NIA and at Johns Hopkins Hospital have reevaluated cardiac function in healthy volunteers enrolled in the Baltimore Longitudinal Study of Aging (BLSA), which has now been in progress 28 years. In this reevaluation they have used stress tolerance tests to look for evidence for coronary heart disease (similar to tests used regularly by cardiologists); in addition to monitoring electrocardiographic changes, they have also obtained thallium scans during the exercise tolerance test. These scans are a new medical technology in which a small amount of radioactive thallium

is administered to the subject, who then takes an exercise tolerance test. At the end of the tolerance test, a radionuclide scan of the subject's chest and heart is obtained. The scan shows the distribution of the tracer amount of thallium to the heart muscle and has been demonstrated to be a good indicator of the extent of blood flow to all parts of the heart under the stimulated conditions of the exercise tolerance test. Any areas on the scan which suggest poor uptake of thallium are considered to indicate areas where there is poor circulation to that part of the heart muscle, i.e., evidence for coronary artery disease.

In their study of healthy volunteers, spanning the ages from their 20s up into their 80s, Dr. Lakatta and his colleagues found that about 50 percent of the subjects in their 70s and 80s had some evidence for coronary artery disease, as indicated either by changes in the electrocardiogram or by areas of poor uptake of the thallium on the scans. In the remaining 50 percent, they found that the cardiac (heart) output achieved on the exercise tolerance test was in exactly the same range as in the younger subjects, from age 20 on up. That is, in the absence of evidence for coronary artery disease, there was no evidence for any decline with age in cardiac (heart) function, either at rest or during the standard exercise tolerance test. This research was reported in the highly regarded cardiological journal, Circulation, in February 1984, and has also been discussed by Dr. Lakatta in a paper on "Health, Disease and Cardiovascular Aging" in America's Aging: Health in An

Older Society, recently published by the National Academy of Sciences. In further follow-up studies, Dr. Lakatta and his colleagues have found that this type of approach provides predictive information about the future likelihood of any episodes of acute heart disease such as heart attacks (myocardial infarction) or angina. The following table summarizes their unpublished data on four-year follow-ups of subjects, separated into those who had neither electrocardiographic nor thallium scan abnormalities on the exercise tolerance test, those who had abnormalities in one or the other of these two tests, and those who had abnormalities on both. As can be seen, the likelihood of a coronary event in the next four years was very low among subjects (including those age 70 and older) who had no abnormality on the electrocardiogram or thallium scan. The risk for such an event was 12 times higher among those who had abnormalities in both tests.

Test Results (+ = abnormal) ECG	Thallium	Number tested*	Number with coronary event in next 4 years	Percent	Average age-years
+	+	17	7	41.2	70
+	-	31	4	12.9	65
-	+	32	2	6.2	60
-	-	300	6	2.0	59**

*These persons are a part of the Baltimore Longitudinal Study of Aging of the National Institute on Aging.

**Of the 300 with double-negative tests, approximately 100 are aged 70 and older.

These results need further confirmation in more extensive numbers of people and for longer periods of time. However, these early results indicate that not only present but future cardiac functional status can be determined and predicted, and that in many

people in their 70s and 80s cardiac function is and will be maintained in the same range as in younger people.

A second essential organ for maintenance of health and mental functioning is the brain. In earlier studies of performance on intelligence tests, using cross-sectional samples, the data suggested that there is an overall decline in mental functioning with age. However, in the now classical study by Dr. Warner Schaie and colleagues (the Seattle Longitudinal Study) reported in their book, Longitudinal Studies of Adult Psychological Development, published in 1983, it was found that when researchers followed the same subject over time and used each person as his or her own control, in nearly 80 percent of the subjects there was little or no decline at least as far as age 80 (the furthest these studies have extended). There was a slight decline on average in performance of what is called "fluid" intelligence, i.e., the ability to acquire and use new knowledge; but on the average there was a continuing increase with age in performance of "crystallized" intelligence, i.e., the ability to use previously acquired information. It is important to note that, in these tests as in all others, there is considerable variation between individuals at all ages, with a trend toward more variation in older ages. This fact emphasizes the importance of considering each person as an individual in determining his or her capabilities for any role in life at any age.

Further evidence about preservation of brain function has been provided through the studies of Dr. Stanley Rapoport and his colleagues in the Laboratory of Neurosciences of NIA in the Warren G. Magnuson Clinical Center at the National Institutes of Health in Bethesda. They have used the new medical technology of positron emission tomography (PET) to measure glucose (sugar) metabolism in healthy adults of all ages. Glucose is the main source of energy for brain function, and its metabolism is a good measure of brain function. In these studies there is no evidence for any decline in brain metabolism, again at least up into the 80s. Their work has been summarized, among other places, in an article by Creasey, H., Rapoport, S. I., "The Aging Brain," Annals of Neurology, in 1985.

Another example of new evidence relates to the kidney. A recent summary of longitudinal studies on kidney function in the healthy volunteers in the Baltimore Longitudinal Study of Aging, again with the important inclusion of the subject as his own control over time, indicates that there is no decline in kidney function with age in approximately 35 percent of the subjects. The remaining 65 percent show variable degrees of decline. It is not clear why some older people show declines in kidney function over time and others do not -- there was no clear evidence for kidney disease in any of these subjects. But the important point in the current discussion is that individuals can maintain effective kidney function into very late years. It is essential to consider the health status of each individual rather than to make arbitrary assumptions about

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changes with age alone. This work was published, by Dr. Lindeman and colleagues in the Journal of the American Geriatrics Society, in May 1985.

Not only may function be well maintained into late years, it can also improve with use or exercise. Recent studies by Dr. James Holloszy and associates at the Washington University School of Medicine have shown that, in a group of generally healthy people aged 60 to 90, previously sedentary, who volunteered to enroll in a typical fitness program, improvement over the next year was very similar to the improvement found in younger people who enroll in such fitness programs. Their maximum aerobic capacity increased an average of 38 percent, and there was improvement in their blood lipoproteins, the fats in the blood which are related to heart disease, and also in their handling of glucose, which is manifested by a decline in any tendency toward diabetes. Thus, function may not only be maintained but may likely be improvable in later years. This work is reported in a paper by Dr. D. R. Seals and others in the Journal of Applied Physiology, in 1984.

Finally, in studies of personality traits at the Baltimore Longitudinal Study of Aging, conducted by Drs. Robert McCrae and Paul Costa, it has been found that personality characteristics are remarkably stable and unchanged over a given person's lifespan. This is presented in their book, Emerging Lives, Enduring Dispositions, published in 1984.

I do not want to leave the impression that there are no changes with aging, or that we begin to know all that one would like to know in this field. Some organ systems, such as the lungs, have not been as carefully reevaluated in longitudinal studies, using the latest medical technologies, as has been done in the heart, for example. In addition, we do know that with aging there are changes in the structure of connective tissues and in responses of organs to hormones, which at least up to the present we cannot attribute to disease. We are just beginning to learn about genetic changes with aging and the roles of genes in determining or favoring the development of diseases in later years, through the application of the remarkable new technologies of molecular genetics.

We also must keep in mind that many older people acquire chronic diseases which limit their functional capacities. Over the age of 65, approximately 45 percent of people report some degree of arthritis. I have already indicated that in the older subjects studied by Dr. Lakatta approximately half had some evidence of coronary artery disease on the stress tolerance test; and other conditions such as decline in vision and hearing, and the development of diabetes and hypertension, are common. These and other conditions can all also begin and be present well before the age of 65 or 70, and must obviously be taken into consideration in determining the functional capacity of any individual, in relation to whatever job or role in life is being considered by or for that individual.

In summary, recent research confirms what has been concluded from earlier studies, namely, that there is no convincing medical evidence to support a specific age for mandatory retirement in all cases.

I will be pleased to answer any questions which the Committee may have. Thank you.

Mr. MARTINEZ. At this time we will——

Mr. PEPPER. If it is not an impropriety for me to say so, and I knock on wood when I do it, I am 85 and I have never had any arthritis. Thank the Lord.

Mr. MARTINEZ. Mr. Pepper, I was sitting here trying to figure out how old you were. I couldn't remember.

Dr. Silbermann.

Dr. SILBERMANN. Congressman Pepper, Congressman Martinez, ladies and gentlemen, I hope a recounting of my personal story may help this committee, I sure hope so.

Good morning. My name is Eugene Silbermann. I am going to read this because we elderly have a tendency to roam around.

I am a practicing physician specializing in obstetrics and gynecology. I am 71 years old.

It is unusual for me to mention my age in introducing myself. I like to think that age is irrelevant, it shouldn't matter what year one was born, what matters is how well one performs one's work.

Since 1948, I have been affiliated with the Obstetrics and Gynecology Department of the New York Medical College, where I am currently associate professor.

The college has an affiliation agreement with the city of New York to supply medical personnel to Metropolitan Hospital Center. I have worked at this center since 1948.

Although I originally served the hospital on a part-time basis, also maintaining a private practice, since 1980 I have worked full time—that is, no private practice. I made that decision for a couple of reasons. I really enjoy the work I do at the hospital, which includes teaching medical students and residents.

Also, I had every reason to believe that my future was secure and that I could work as long as I wanted and could expect to continue earning a living. Until recently, I was on top of the world.

The picture changed drastically last October. The State of New York recently enacted a law which would ban mandatory retirement for all State employees. This law, effective January 1, 1986, would make it impossible for anyone of my age to be retired on the basis of age. Two months before that law was to go into effect, 28 of us on the medical school staff were notified that we would be mandatorily retired.

I was thunderstruck. It is hard to put into words how it feels to be told you are finished and that you are no longer allowed to contribute, especially in the midst of functioning on a high level. What

really hurt was the way the news was delivered. Never a word from the administration of the college, it just filtered down to me, finally being delivered by the chief of services at the hospital.

The worst was finding myself in an adversary position relationship with the college. After 38 years of compatibility, we were at loggerheads. They had lawyers, I had lawyers. They did a lot of subtle things to make me feel that I was the bad guy for wanting to continue work.

There was an arrogance on the part of the college, an unwillingness to yield an inch or to even discuss the matters. I was told things like, you have made a lot of money, you can stay on as a volunteer. Also, you can go ahead and reopen your private practice. Obviously, neither suggestion was very realistic.

Even more unbelievable was that we were finally served formal notice in the form of a Western Union telegram which arrived on the evening of December 30, 2 days before the new law was to go into effect.

They chose this time, I was told, in an attempt to make our legal positions untenable. Such slipperiness—that is the word—on top of all the indignity we had already suffered.

Only 2 of the 28 saw fit to fight this, and we expected our attorney to fight it as hard as he could in court.

He got a temporary restraining order and I have been able to continue working because of this court injunction against the college. The judge, in his pronouncement, said that volunteering my services was the equivalent of indentured servitude. He said that we had to be reinstated in the same jobs, same status, and same salary. And we are now waiting for a hearing on this case in court. I am hopeful things will come out in our favor.

I have received some encouraging signs of support. The chief of services who first broke the news to me about mandatory retirement sent a letter to the college saying that letting me go was the worst mistake they could make for his department. He is well acquainted with my work, we have served together for 9 years. This has meant a lot to me.

Also, the 24 residents in my department at the hospital all signed a letter of support.

I enjoy medicine. I love teaching. I have all my faculties, hopefully. I am up to date on practices of obstetrics and gynecology. I can still contribute to society. I can still put in a day's work.

I sometimes think of myself as a Don Quixote figure, tilting at windmills. But in truth, this is a very serious matter with principles at stake.

Age is no indicator of competence, talent or commitment. And I commend the subcommittees for their work on this issue. I hope Congressman Pepper's bill will pass so that others will not have to endure what I have endured.

Mr. PEPPER. Excellent.

Mr. MARTINEZ. Thank you, Dr. Silbermann.

[The prepared statement of Dr. Eugene Silbermann follows:]

PREPARED STATEMENT OF DR. EUGENE SILBERMANN

Good morning. My name is Eugene Silbermann. I am a practicing physician specializing in obstetrics and gynecology, and I am 71 years old.

It's unusual for me to mention my age in introducing myself -- I'm more the type to think that age is irrelevant -- that it shouldn't matter what year you were born. What matters is how well you perform your work.

Since 1948, I have been affiliated with the Obstetrics and Gynecology Department of the New York Medical College, where I am currently associate professor. The College cooperates with the City of New York to supply medical personnel to Metropolitan Hospital Center, so I also have worked at Metropolitan Hospital Center since 1948. Although I originally served the hospital on a part-time basis (also maintaining a private practice), I have worked full-time there since 1980. I made that decision for a couple of reasons -- I really enjoy the work I do at the hospital, which includes teaching medical students and residents. Also, I had every reason to believe my future at Metropolitan was secure -- that I could work as long as I wanted and could expect to continue earning a good living. Until recently, I was on top of the world.

The picture changed drastically last October, though. The State of New York recently enacted a law which would ban mandatory retirement for all State employees. This law, effective January 1, 1986, would make it impossible for anyone of any age to be retired on the basis of age. Two months before that law was to go into effect, 28 of us on staff were notified that we would be mandatorily retired.

I was thunderstruck. It's hard to put into words how it feels to be told that you're finished, that you're no longer allowed to contribute, that your time is up. What really hurt was the way the news was delivered. I never heard a word from the Administration of the College. The news just filtered down to me, being delivered finally by the chief of services at the hospital.

Suddenly I found myself in an adversary relationship with the college. After 38 years of compatibility, we were at loggerheads. They had lawyers, I had lawyers. They did a lot of subtle things to make me feel like I was the bad guy for wanting to continue working. There was an arrogance on the part of the college -- an unwillingness to yield an inch, or to even discuss matters. I was told things like, "Well, you've made a lot of money. You can stay on as a volunteer." Also, "Well, you'll be all right. Go ahead and reopen your private practice." Obviously, the neither suggestion was very realistic.

Even more unbelievable, when the 28 of us were finally served with a formal written notice of all this, it arrived on the evening of December 30th -- two days before the new law was to go into effect. They chose this time in order to make our legal position untenable. Such slipperiness, on top of all the indignity we'd already suffered.

Working against the clock on December 31, a colleague of mine at the hospital and I enlisted an attorney. We were determined to fight this decision and fight it hard, in court. I've been able to continue working throughout this ordeal because of a court injunction against the College. I felt somewhat vindicated when the judge, in his pronouncement, gave the College a good tongue-lashing. He said that asking me to work as a volunteer was the equivalent of indentured servitude. No, he said, we should be reinstated in the same jobs, with the same status and same salary. My colleague and I are now waiting for a hearing on the case. Judging by the tone the judge has set to date, I am hopeful things will come out in our favor.

I have received some encouraging signs of support. The hospital chief of services, who first broke the news to me about my mandatory retirement, sent a letter to the College saying letting me go was was the worst mistake they could make. He is well acquainted with my work -- we've served together for nine years -- so this meant a lot to me.

I enjoy medicine and I love teaching. I know I have all my faculties -- I can see and hear and I am up-to-date on trends in obstetrics and gynecology. I can still contribute to society. I can still put in a good day's work. Residents and medical students under my tutelage appear pleased with my performance.

I sometimes think of myself as a Don Quixote figure, tilting at windmills. But in truth, this is a very serious matter, with principles at stake.

Age is no indicator of competence, talent, or commitment. I commend the Subcommittees for their work on this issue and I hope Congressman Pepper's bill will pass so that others will not have to endure what I have endured.

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Mr. MARTINEZ. Professor Quinn.

Dr. QUINN. Thank you very much.

My testimony is based not on personal experience, but on 5 years of economic research on the determinants of individual retirement, and I would like to use these few minutes to make four simple points.

One, mandatory retirement is only one aspect of a much broader social policy that affects individual retirement decisions.

Two, as such, mandatory retirement provisions have much less impact on behavior than they appear to have.

Third, Social Security and many private pension plans are set up in such a way that they penalize and discourage work at a certain age, and they do so by imposing subtle but effective pay cuts on older workers.

Fourth, Social Security and private pensions, which provide the carrot, and mandatory retirement, which provides the stick, tend to come hand in hand. Therefore, much of what looks like the effect of mandatory retirement is, in fact, the result of financial incentives to retire that often occur at the same time.

Therefore, removing mandatory retirement laws, as this bill proposes, without changing the financial incentives that exist will have only a modest impact on overall retirement patterns.

I really hate to admit that I can summarize 5 years of research in a simple analogy, but I am afraid I can.

Suppose I offer you the following agreement: For every hour you work for me before noon I will pay you $10 an hour, for every hour you work for me after noon I will pay you $7 an hour. How would you respond?

Well, most people would tend to work hard before noon and work less or not at all after noon.

This is precisely the effect of Social Security and many private pension plans on compensation, except that the noon is age 65 or earlier. They impose surreptitious pay cuts on older workers and workers respond exactly the way you would expect. They tend to retire.

Now, how do these pay cuts occur? Social Security provides the right to an income stream in the future. Since the income arrives in different years, the magnitude of this stream is best summarized by its present discounted value, which is just the size of the asset or the pile of dough today that could provide the same income stream in the future.

When an individual who is eligible for Social Security retirement benefits decides to work another year, there is good news and there is bad news with respect to Social Security.

The bad news is that the worker generally forgoes that year of Social Security benefits, say $6,000 a year.

The good news is that future Social Security annual benefits will be higher than $6,000, both because the worker's annual monthly wage will be recalculated and because Social Security provides a delayed retirement credit, a percentage adjustment per year of delay once eligible.

An interesting question is, Which income stream is worth more, one starting today at $6,000 per year if you retire, or one starting later, say in a year, but with higher annual benefits?

The answer, of course, depends on whether the increments in the future are sufficiently large to compensate for the loss in benefits today.

Between the ages of 62 and 65, when the Social Security delayed retirement credit is about 7 percent per year of delay, the present discounted value of the increments in the future approximately equals the loss in benefits today. We say that this adjustment is approximately actuarially fair.

But at 65 there is a major change in the law. The delayed retirement credit drops from 7 to 3 percent per year of delay, and it was only 1 percent prior to 1982. This is clearly insufficient compensation for the loss in benefits today.

Here is the main point. What this means is that an employee who continues to work beyond 65 draws a paycheck, good, but loses Social Security wealth, bad. If the person earns $20,000 via the paycheck and the Social Security wealth loss is, let's say, $5,000, the true net compensation of this individual becomes $15,000—plus 20, minus 5—a pay cut of 25 percent.

Employer pensions are much more difficult to study, because there are over 800,000 of them, each with its own rules and regulations. But the evidence suggests that many also contain implicit work disincentives, and ones that often go into effect before age 65.

Pension wealth also decreases in many cases with continued work. They compound the Social Security effect and can contribute to large pay cuts.

Now, my research with Richard Burkhauser of Vanderbilt University suggests that these work disincentives exist and in many cases impose large pay cuts on older workers, and that workers behave as though they understand these work disincentives and respond to them.

In particular, our research showed that the higher the wealth loss of Social Security and pension accompanying an additional year of work, the more likely an individual is to retire.

Now, what about mandatory retirement, which is the topic today?

It certainly looks important. For example, Burkhauser and I followed a sample of employed men age 62 to 64 back in 1973.

Of those who were not subject to mandatory retirement, nearly 60 percent of them were still working 2 years later.

Of those who did face mandatory retirement, only 17 percent were working.

Sixty versus seventeen, this is a big difference and it suggests a very large potential mandatory retirement effect.

But we don't believe that there is a large effect. Why not? The reason is that those facing mandatory retirement are also very likely to be eligible for Social Security and pension benefits, and along with these benefits come the work disincentives described above.

It turns out that we could explain over half of the difference in behavior mentioned above by factors having nothing to do with mandatory retirement, primarily these subtle pay cuts.

Mandatory retirement rules and pension plans that penalize work beyond a certain age appear to be alternative routes to the same end. And we think that eliminating the stick, mandatory re-

tirement, without altering the carrot, the financial incentives, will only have a modest effect on aggregate retirement behavior.

Now, there are two important differences between the situation we studied, with data from the mid-1970's, and the situation today.

The first is that a rarely discussed but I think extremely important 1983 amendment to the Social Security Act will slowly raise this delayed retirement credit after 65 from 3 percent per year of delay after age 65 to 8 percent, in one-quarter point steps between 1990 and 2010.

This will diminish, if not eliminate, the Social Security work disincentive between the ages of 65 and 70. This is a change that I applaud, and I hope Congress goes through with it.

The second difference is that current legislation now permits mandatory retirement only at age 70, not age 65. This is an important difference, because at age 70 the Social Security earnings test disappears.

At 70, one can work and receive full Social Security retirement benefits simultaneously. This means that the Social Security work disincentives totally disappear at age 70. One-half of the carrot is gone, although the other half via employer pensions remains.

An implication of this is that the argument that mandatory retirement is overrated as a determinant of individual behavior, because financial incentives are doing the job, is a weaker argument at age 70 than at age 65.

It is conceivable, I suppose, that in the future a larger percentage of the population will want to work to age 70 and beyond. In this case, whether or not we have mandatory retirement at age 70 may make a difference. But currently individuals have to face the work disincentives from both Social Security and employer pensions between ages 65 and 70, and very few of them make it to age 70 on the job.

What do I think about the bill to eliminate mandatory retirement?

In general, I think it is a good idea and a good bill. But I don't think it will make much difference in the aggregate.

Most workers will continue to retire long before age 70, as they do now, partly because their pension plans so strongly recommend it. But those who are fit and want to continue to work will be able to do so, and this, I think, is an improvement.

Thank you very much.

Mr. MARTINEZ. Thank you, Dr. Quinn.

[The prepared statement of Dr. Joseph F. Quinn follows:]

PREPARED STATEMENT OF DR. JOSEPH F. QUINN, PROFESSOR OF ECONOMICS, BOSTON COLLEGE

I would like to use these few minutes to make several simple points:

i) mandatory retirement is only one aspect of a much broader social policy that affects individual retirement decisions;

ii) as such, mandatory retirement provisions are much less important than they appear;

iii) Social Security and many private pension plans are set up in such a way that they penalize and discourage work after a certain age;

iv) they do so by imposing a subtle but effective pay cuts on older workers;

v) Social Security and private pensions, which provide the carrot, and mandatory retirement, which provides the stick, tend to come hand in hand;

vi) therefore, much of what looks like the effect of mandatory retirement provisions is in fact the result of financial incentives to retire that often occur at the same time;

vii) therefore, removing mandatory retirement laws without changing these financial incentives will have only a modest impact on overall retirement patterns.

These conclusions are derived from a series of studies done by Richard V. Burkhauser, of Vanderbilt University, and me, under a grant to the Urban Institute from the Department of Labor. The data available at the time applied to the mid-1970s, when the most common mandatory retirement age was 65, soon to be changed to 70. The quantitative results are not directly applicable to the bill under consideration today, but the qualitative conclusions are.

I hate to admit that I can summarize 5 years of research in a simple analogy, but I can. Suppose I offered you the following agreement - for every hour you work for me before noon, I will pay you $10, and for every hour after noon, $7. How would you respond? Most people would tend to work hard before noon, and work less or not at all after noon. This is precisely the impact of Social Security and many private pensions plans on compensation, except that "noon" is age 65 - or earlier. They impose surreptitious pay cuts on older workers, and the workers respond as you would expect. They tend to retire. How do these pay cuts occur?

Social Security provides the right to an income stream in the future. Since the income arrives in different years, the magnitude of this stream is best summarized by its present discounted value - the size of the asset today that could provide the same income stream in the future. When an individual eligible for Social Security retirement benefits decides to work another year, there is good news and bad news with respect to Social Security. The bad news is that the worker generally foregoes a year of Social Security benefits (say, $6000 per year). The good news is that future annual benefits will be higher, both because the worker's annual monthly wage will be recalculated, and because Social Security provides a delayed retirement credit - a percentage adjustment per year of delay. An interesting question is which income stream is worth more - one starting today at $6000 per year, or one starting later (say, in 1 year), but with higher annual benefits. The answer depends on whether the increments in the future are sufficiently large to compensate for the loss of a year's benefits today.

Between the ages of 62 and 65, when the delayed retirement credit is about 7% per year of delay, the present discounted value of the increments approximately equals the loss in benefits today. We say that this adjustment is close to actuarially fair. But at age 65, the delayed retirement credit drops to 3% per year of delay (and was only 1% prior to 1982) - clearly insufficient compensation. This means that an employee who continues to work draws a paycheck - but loses Social Security wealth. If the paycheck equals $20,000 and the wealth loss is $5000, the true net compensation becomes $15,000 - a pay cut of 25%!

Employer pensions are more difficult to study, because there are over 800,000 of them, each with its own rules and regulations. But the evidence suggests that they also tend to contain implicit work disincentives - and ones that often go into effect before age 65. They compound the Social Security effect, and can contibute to large pay cuts.

Our research (copies of which I will leave with the Subcommittees) suggests that

- these work disincentives exist, and in many cases impose large percentage pay cuts on older workers, and

- workers behave as though they understand and respond to these work disincentives.

In particular, the higher the wealth loss accompanying an additional year of work, the more likely an individual is to retire.

But what about mandatory retirement? It looks important. For example, Burkhauser and I followed a sample of employed men aged 62 - 64 in 1973. Of those not subject to mandatory retirement, nearly 60% were still working 2 years later. Of those who did face mandatory, only 17% were still working then. This is a big difference, and suggests a large potential mandatory retirerment effect. But we do not believe there is a large effect. Why not? Those facing mandatory retirement are also very likely to be eligible for Social Security and pension benefits, and along with these benefits come the work disincentives described above. It turns out that we could explain over half of the difference in behavior mentioned above by factors having nothing to do with mandatory retirement - primarily the pay cuts. Mandatory retirement rules and pension plans that penalize work beyond a certain age appear to be alternative routes to the same end. We think that eliminating the stick without altering the carrot will only have a modest impact on aggragate retirement behavior.

There are two important differences between the situation we studied and the situation today. The first is that a rarely discussed 1983 Amendment to the Social Security Act will slowly raise the delayed retirement credit from 3% per year of delay after age 65 to 8% - in 1/4 point steps between 1990 and 2010. This will diminish if not eliminate the Social Security work disincentive between ages 65 and 70. This is a change that I applaud, and I hope Congress goes through with it. The second it that current legislation now permits mandatory retirement at age 70, not at age 65. This is an important difference, because at age 70, the earnings test disappears - one can work and receive full Social Security retirement benefits. This means that the Social Security work disincentives totally disappear at age 70. One half of the carrot is gone, though the other half - via employer pensions - remains.

An implication of this is that the argument that mandatory retirement is overrated (because financial incentives are doing the job) is weaker at age 70. It is conceivable that in the future a larger percentage of the population will want to work to age 70 and beyond. In that case, whether mandatory retirement is permitted at age 70 or not may make a difference. But in the present, individuals have to face the work disincentives from both Social Security and employer pensions between ages 65 and 70, and very few make it to age 70 on the job.

What do I think about the bill to eliminate mandatory retirement? In general, I think it is a good idea, but I do not think it will make much difference in the aggregate, . Most workers will continue to retire long before age 70, as they do now, partly because their pension plans so strongly recommend it. But those who are fit and want to continue to work will be able to do so. As always, there may be exceptions to this general rule. Every group considers itself unique in many important repects, and the university community is no exception. We have a retirement plan (TIAA-CREF) that does not penalize late retirement. And I must admit that an actuarially fair pension plan, no mandatory retirement and the concept of tenure is a combination that causes some concern. I speak only for myself on this (and I may change my tune in 30 years), but I suspect that you may hear similar sentiments though more official channels. There is a good point being made.

And what about the private pension work disincentives that exist, and will continue to exist, in most plans? They will remain important. In fact, if the private pension provisions change in response to the elimination of mandatory retirement, they may negate even the modest impact of the proposed legislation. They will continue to influence retirement decisions - but by inducing them rather than mandating them. Should these private pension disincentives be outlawed? I think not. Unlike Social Security rules, these are voluntary provisions mutually agreed upon by employer and employee. Under certain assumptions, they may work in the employee's best interests by reducing job turnover and raising lifetime wages. But that is another topic.

Thank you very much.

Mr. MARTINEZ. Mr. Johnson.

Mr. JOHNSON. Mr. Chairmen and members of the subcommittees, thank you for this opportunity to testify on behalf of the American Association of Retired Persons on the issue of eliminating mandatory retirement based on age.

I am Erling Johnson and I am going to follow the example of Dr. Silbermann and just tell you a little bit about my situation.

I was forced to retire 11 years ago.

Mr. PEPPER. Excuse me for interrupting. I am advised that Dr. Flemming has a plane to catch at 10:45. Would it be all right, Mr. Chairman, to excuse him?

Mr. MARTINEZ. Yes, absolutely. Would you like to ask him some questions before he leaves? Do you have a minute for some questions?

Dr. FLEMMING. Yes, I do.

Mr. MARTINEZ. Would you like to?

Mr. PEPPER. Sure. I will just ask one question, if you will excuse us, Dr. Johnson.

Dr. Flemming, do you think we need to make Social Security law adjustments to the bill that we are talking about, as indicated here by Dr. Quinn?

Dr. FLEMMING. I was very much interested in the testimony. But personally I would make that 8-percent adjustment or movement, 3 percent to 8 percent, much earlier than the law now provides, because I recognize that there is a disincentive there.

So, you know the commission on which you served did make provision for moving it up to 8 percent.

I appreciate the fiscal implications of moving it up more rapidly, I mean as far as the impact on the financing of the Social Security System is concerned. But I do think that if it could be done, it would be a desirable thing to do.

But I also agree with you that in view of the fact that the earnings test or retirement test is not applicable after the age of 70 as far as this law is concerned, if we could get rid of the compulsory retirement at age 70, then we don't have any disincentive as far as Social Security is concerned.

But I also agree with you that we have got a problem with some of the private pension plans, that we have to consider.

But I think overriding it all, although I recognize the disincentives that you talked about, I think there is an overriding factor here, and that is the desire on the part of the individual older person to continue to be involved. He needs fiscal compensation but she or he also needs psychic compensation, and it is that psychic compensation that will often bring people to the place where they say, "Well, maybe I might be losing a little on this, but the important thing is that I have the opportunity to continue to be involved in a constructive way."

Mr. PEPPER. Thank you very much, Dr. Flemming. We are, as usual, grateful to you for your valuable testimony.

Dr. FLEMMING. I appreciate the opportunity of participating, and I am sorry I have to leave a little early.

Mr. PEPPER. Thank you.

Mr. MARTINEZ. I would associate my remarks with those of the Honorable Claude Pepper. Thank you for being here.

Dr. FLEMMING. Thank you very, very much.

Mr. MARTINEZ. Mr. Johnson.

Mr. JOHNSON. Mr. Chairman, I was just giving you a little background on my own experience.

I was forced to retire 11 years ago. I was a public employee in the State of Minnesota and the 1978 law that you have passed was not in effect.

I have had a very happy 11 years. I would have liked to continue working, and I have continued working. The only difference is, I haven't gotten paid for it.

I have served—spent yesterday and the day before as a member of the State board of education, and I have served with the Red Cross, with the Boy Scouts. I have raised money for colleges and all types of things that are volunteer. And I think these are the things that have kept me feeling good, kept me healthy.

So, I am not complaining about my own situation, but not every person who retires at 65 is as fortunate as I, and it is for those people that I appreciate having an opportunity to speak to you today.

I am on the board of directors—that is another volunteer thing—of the AARP and I have really enjoyed that responsibility, attempting to speak for the 22 million people that belong to AARP. And incidentally, 30,000 new members are gained every week, so 22 million is just a temporary spot in the total enrollment figure of AARP.

Now, approximately 5 million of AARP's 22 million members over the age of 50 are employed. On behalf of those members and all older persons who work or wish to work, I urge the Congress to pass Representative Pepper's bill, H.R. 4154, and extend the protections of the Age Discrimination in Employment Act to all persons by eliminating mandatory retirement based on age.

Probably almost everything I will say from here has been said, but I want to say it in this context: We believe, the AARP believes that employment discrimination based on age, like that based on race and sex, is a result of unfair stereotypical assumptions that ignore an individual worker's ability.

Notwithstanding the Age Discrimination in Employment Act, older persons face sharply limited employment opportunities. However, a 1982 survey of retirees conducted for AARP found that one-third of those surveyed would prefer to be working.

Elimination of mandatory retirement is not a new idea. We recognize that. Reference has been made already to Federal employees that cannot be retired based on age, and numerous States have eliminated it for both public and private sectors. And there are no reports, that we know of, of adverse effects on employer operations or productivity.

It is now well past the time for us to extend this basic right to all older Americans.

We do not buy the two arguments most often used to justify age discrimination in employment, those being the medical that you have heard much about today and the economic.

As discussed in more detail in AARP's written statement, which you have, we do not believe these arguments hold water.

We have heard Dr. Williams give his report on the medical studies, and we believe that they consistently demonstrate that chronological age is a poor determinant of ability and that capability varies greatly with the individual, regardless of age.

Nor can employers argue that it is not possible to determine an individual's competence for a job. No less an authority than the U.S. Supreme Court has indicated in recent cases on the Age Discrimination in Employment Act that advances in medical technology and the social sciences have provided us with the means for testing an individual person's fitness for virtually any type of job, from public safety officer to accountant.

We believe, contrary to the assertions of some employers, that increasing the number of persons older than 65 or 70 who are working will actually save employers money.

A report prepared for AARP has concluded that employer pension costs will decline as the number of employees beyond age 65 increases.

Even if employers were required to continue to contribute to the pensions of older workers—and I might say presently they can terminate such contributions after the employee is 65—but even if they continued it, this cost is more than offset by the gains that would result from the shortened period of time that pension payments would be made after retirement.

Further, we believe that the Social Security trust fund will realize an even greater savings, and we believe this is due to increasing the number of persons who contribute to the fund and correspondingly decreasing the number of persons who receive benefits.

Mandatory retirement, thus, makes little sense from either the individual employer's or national economic perspective.

In sharp contrast to this, the effect upon an able individual of being forced to retire can be devastating. Not only can it be emotionally and physically shattering, but the worst and most immediate impact is often financial.

Most older persons experience a sharp decrease in income upon retirement. Because of limited employment opportunities, this may last the rest of their lives.

Older persons who work are able to maintain their standard of living with a form of income that we know as wages, and we also know that wages provide much better prospects for keeping up with inflation and are less likely to rely upon economic transfer programs funded by the Government.

Mr. MARTINEZ. Mr. Johnson, I am terribly embarrassed, but can I interrupt you one more time? It seems that Dr. Williams has to leave to catch a plane also, and I am sure that Mr. Pepper has one question, at least, to ask of Dr. Williams before he leaves.

Mr. PEPPER. If Dr. Johnson will allow me.

Mr. JOHNSON. That is perfectly OK.

Mr. PEPPER. All right. Dr. Williams, I was very much impressed by your able testimony, the medical testimony resulting of which you were aware.

What would you say—and I had in mind your testimony before our select subcommittee in respect to airline pilots. As you know, beginning back many years ago there was an absolute mandatory retirement age of 60 for commercial pilots, no matter how good

they are, how competent they are, how many tests they pass. They are out the second they become 60 years of age.

Would you just make a brief comment on that matter in respect to the data that you discovered?

Dr. WILLIAMS. Thank you, Mr. Pepper. I did testify on this before a hearing of the House Select Committee on Aging back in October, a hearing on this issue of mandatory retirement for commercial airline pilots at age 60, and I testified essentially the same as I have today about the fact that there is no medical basis, convincing medical basis for that mandatory retirement age even for commercial airline pilots. That is certainly a special group that we all want to be sure are adequate to do their job.

Also with me were two other specialists, a Dr. Samuel Fox and a Dr. Kuntz, who testified on both cardiac and mental and intellectual performance as pilots and indicated that it was possible to carry out adequate tests to show the competency of pilots beyond age 60.

And as a result of those hearings, we were directed to work to prepare a proposal for extending, for testing that would allow the extension of the pilot's certification to fly beyond age 60, and that proposal is now being reviewed by the Federal Aviation Administration and will be discussed further with the House committee.

So, I believe that there is some chance of some movement on that issue.

Mr. PEPPER. I want to commend you, Dr. Williams, on the excellent work that you and your associates are doing in that critical area. Thank you very much, and we are very grateful to you.

Mr. MARTINEZ. Before you leave, Dr. Williams, let me correct myself. You have to attend a hearing to testify on NIH funding. But let me ask a question, too, before you leave, because in your testimony you referred to the loss—that normally in the aging process there is a loss of hearing and sight.

You know, I want it to be perfectly clear that much of that loss, sight loss and hearing, can be corrected.

Dr. WILLIAMS. Yes, sir.

Mr. MARTINEZ. And that there may be some sight loss in an elderly person that can't be corrected, but the majority of it generally can be. So, that really isn't a handicap.

Dr. WILLIAMS. Yes, sir, that is correct. Many of these problems that do arise in many older people, but by no means all, can be corrected. And I appreciate your bringing that out, because I wouldn't want to leave the wrong impression.

Mr. MARTINEZ. All right. One last question. You referred in your testimony to the rate that people age. Everybody ages at a different rate. Now, certainly I look at Dr. Silbermann and I see him at 71 and to me he looks about 58 to 60 years old. And, of course, I am 57 years old and I feel somewhat of a—he certainly wouldn't consider me very old at 57. I did, when I was 13, figured all people 57 were very old. But now I feel like a whippersnapper next to Dr. Silbermann.

Mr. PEPPER. You just grew up.

Mr. MARTINEZ. People do age at different ages. Is that very important in determining the person's ability to do a specific job?

Dr. WILLIAMS. Yes, sir. I think the most important fact I have learned is the variation between individuals in relation to aging,

just as you are saying, that each individual is different and actually we become more different as we get older, rather than less. So that each person needs to be looked at in terms of his own personal characteristics and in terms of any job or other role in life.

Mr. MARTINEZ. Thank you very much, Dr. Williams. We will excuse you now. Thank you for your testimony. It has been a great help to us.

Mr. PEPPER. Thank you.

Dr. WILLIAMS. Thank you.

Mr. MARTINEZ. Mr. Johnson.

Mr. JOHNSON. You can figure my age out from my retirement date in 1975. I am 76, going to be 77 in July. I feel fine.

One final word. The AARP believes that the arguments justifying raising the age gap for mandatory retirement from 65 to 70 in 1978 are the same today for eliminating mandatory retirement entirely.

It is not simply a matter of economics, although as I have said, those arguments cannot be used to justify the continuation of this discriminatory practice.

More important is the question of whether we, as a society, are willing to deny to older Americans their basic rights to remain as productive members of society, something that is ensured to every other person.

The overwhelming majority of Americans, regardless of age, have decided that the answer to that question must be "No." Mandatory retirement based upon age must be eliminated.

Thank you very much for the opportunity to appear before you.

Mr. MARTINEZ. Thank you, Mr. Johnson.

[The prepared statement of Dr. Erling O. Johnson follows:]

Prepared Statement of Dr. Erling Johnson on behalf of The American Association of Retired Persons

Mr. Chairmen and Members of the Subcommittees:

Thank you for this opportunity to testify on behalf of the American Association of Retired Persons on the issue of eliminating mandatory retirement based on age. I am Dr. Erling Johnson and I am a member of AARP's Board of Directors. Approximately 5 million of AARP's 22 million members over the age of 50 are employed. On behalf of those members and all older persons who work or wish to work, I urge the Congress to pass Representative Pepper's bill (H.R. 4154) and extend the protections of the Age Discrimination in Employment Act to all persons by eliminating mandatory retirement based on age.

Employment discrimination based on age, like that based on race and sex, is the result of unfair stereotypical assumptions that ignore an individual worker's ability. Notwithstanding the Age Discrimination Employment Act, older persons face sharply limited employment opportunities. However, a 1982 survey of retirees conducted for AARP found that one-third of those surveyed would prefer to be working.

Elimination of mandatory retirement is not a new idea. Federal

employees cannot be retired based on age and numerous states have eliminated it for both public and private sector employees, with no reports of adverse effects on employer operations or productivity. It is now well past the time for us to extent this basic right to all older Americans.

The two arguments most often used to justify age discrimination in employment based on age are medical and economic. As discussed in more detail in AARP's written statement to the Subcommittees, it is now clear that neither of these arguments holds water. Medical studies consistently demonstrate that chronological age is a poor determinant of ability and that capability varies greatly with the individual, regardless of age. Nor can employers argue that it is not possible to determine an individual's competence for a job. As the Supreme Court has indicated in recent cases on the Age Discrimination in Employment Act, advances in medical technology and the social sciences have provided us with the means for testing an individual person's fitness for virtually any type of job, from public safety officer to accountant.

Contrary to the assertions of employers, increasing the number of persons older than 65 or 70 who are working will actually save employers money. A report prepared for AARP has concluded that employer pension costs will decline as the number of employees beyond age 65 increases. Even if employers were required to continue to contribute to the pensions of older workers (they presently can terminate such contributions after the employee is 65), this cost is more than offset by the gains that would result from the shortened period of time that pension payments would be made after retirement.

The Social Security trust fund will realize an even greater savings, by increasing the number of persons who contribute to the fund and correspondingly decreasing the number of persons who receive benefits. Mandatory retirement thus makes little sense from either the individual employer's or a national economic perspective.

In sharp contrast to this, the effeft upon an able individual of being forced to retire can be devastating. Not only can it be emotionally and physically shattering, but the worst and most immediate impact is often financial. Most older persons experience a sharp decrease in income upon retirement which, because of limited employment opportunities, may last the rest of their lives. Older persons who work are able to maintain their standard of living with a form of income - wages - that has better prospects for keeping up with inflation and are less likely to rely upon economic transfer programs funded by the government.

The arguments justifying raising the age gap for mandatory retirement from 65 to 70 in 1978 are the same today for eliminating mandatory retirement entirely. It is not simply a matter of economics - although, as noted above, those arguments cannot be used to justify the continuation of this discriminatory practice. More important, it is a question of whether we as a society are willing to deny to older Americans their basic rights to remain as productive members of society that is insured to every other person. The overwhelming majority of Americans, regardless of age, have decided that the answer to that question must be "No." Mandatory retirement based upon age must be eliminated.

STATEMENT OF THE AMERICAN ASSOCIATION OF RETIRED PERSONS
ON ELIMINATING MANDATORY RETIREMENT
United States House of Representatives

Committee on Education and Labor
Subcommittee on Employment Opportunities

Select Committee on Aging
Subcommittee on Health and Long-Term Care

March 12, 1986

The American Association of Retired Persons, the largest membership organization in the country with 22 million members over the age of 50, is dedicated to alleviating the problems and addressing the needs of older persons, including the promotion of equitable terms and conditions of employment for all older persons who work or wish to work. Approximately 5 million AARP members are employed. AARP supports Representative Pepper's bill, H.R. 4154, to eliminate mandatory retirement based upon age and extend the protections of the Age Discrimination in Employment Act to all older persons, and urges Congress to pass this bill.

Discrimination in the job marketplace is one of the most common problems faced by older persons today. Employment discrimination based on age, like that based on race and sex, is the result of unfair stereotypical assumptions that ignore an individual worker's ability. Notwithstanding the Age Discrimination in Employment Act (ADEA), age-based employment discrimination remains prevalent and older persons generally face sharply limited employment opportunitites. In addition to a rapidly increasing unemployment level among older

persons, labor statistics indicate that among persons looking for work, older persons have longer periods of unemployment and more difficulty finding jobs. A 1982 survey of retirees conducted by Hamilton and Staff, Inc., for AARP found that one-third of those surveyed would prefer to be working.

In 1984, AARP initiated its Worker Equity Program for the purpose of addressing the employment problems faced by older persons. A primary goal of the Worker Equity Program is the development of a national older worker employment policy to increase meaningful employment choices for older persons. A central aspect of this policy must be the elimination of mandatory retirement based upon age. The current age-70 cap on the Age Discrimination in Employment Act is contrary to the principles of equality of opportunity and treatment; is a waste of the valuable skills and experiences of older persons; and contributes to the poverty into which many older persons fall.

The abolition of mandatory retirement is not a novel idea. Since 1978, it has been prohibited for federal employees. Numerous states have eliminated it for both public and private sector employees, and have reported absolutely no evidence of adverse effects of any kind on employer operations or productivity. The 1978 Amendments to the Age Discrimination in Employment Act, which raised the mandatory retirement age from 65 to 70, represented a first step towards eliminating age as an employment barrier for all older persons. As early as 1982 President Reagan announced his support for legislation to completely eliminate mandatory retirement based on age. It is now well past the time when the age barrier should be removed entirely and employment should be based solely on ability.

The two arguments used most often to justify discriminatory age caps on employment are medical and economic. Neither argument holds water.

Medical studies consistently demonstrate that chronological age is a poor determinant of ability and that capabiblity varies greatly with the individual, regardless of age. Indeed, workforce studies show that older workers perform as well or better than their younger counterparts. To the extent that an employer believes that older persons are unable to perform a particular job, the ADEA establishes the standards by which an employer can try to prove that age is a necessary criteria for the performance of the job. The U.S. Supreme Court in a series of recent cases on the Age Discrimination in Employment Act has made clear that medical and social advances make it possible for employers to confidently determine an individual's capability for virtually every type of job. See Johnson v. Baltimore, 105 S.Ct 2717 (1985); Western Airlines, Inc. v. Criswell, 105 S.Ct. 2743 (1985). There is no reason why these same standards should not be applied to all workers, regardless of age.

Contrary to the specious medical arguments about the incompetence of older workers, it is clear that the impact of involuntary retirement is both emotionally and physically devastating to able individuals. Medical research has shown that forced idleness adversely affects their physical and mental health and a higher-than-expected mortality rate exists among persons involuntarily retired.

It cannot be convincingly argued that eliminating mandatory

retirement will be costly to either employers or to the country as a whole. Not only is the number of persons who would elect to work past 70 quite small (a 1983 report to Congress on the ADEA estimated that if the number of workers 65 and older would increase by only approximately 200,000 workers) but employers will actually save money. A comprehensive report prepared for AARP by the consulting firm of William M. Mercer-Meidinger, Inc., concluded that employer pension costs will decline as the number of employees older than age 65 increases. This is because the costs of continued pension contributions is more than offset by gains that result from the shortened duration of pension payments to retired workers. Thus, if the elimination of mandatory retirement increased the number of working persons older than age 65 by 50%, employers would realize annual pension savings of more than $600 million by the year 2015.

A similar positive impact would be felt in the Social Security System. If elimination of mandatory retirement under federal law increased the number of working persons older than age 65 by just 25%, the estimated reduction in annual Social Security benefit payments would be approximately $739 million; if the increase in older workers was 50%, the annual Social Security savings would be approximately $1.5 billion. As noted above, AARP recognizes that the number of persons older than age 70 who chose to continue to work will probably be quite small. Nontheless, both private pension systems and Social Security trust fund would realize real savings with even a small number of additional older workers. Artificial barriers which automatically transform active contributors to the Social Security trust fund into active recipients of its benefits thus makes little

sense from a national economic perspective.

Rather than having a negative economic effect on employers, it is the forcibly retired individual that suffers the most immediate and worst economic effects of mandatory retirement. Although a few fortunate persons may anticipate adequate pension income, most older persons experience a sharp decrease in income upon retirement and thus must adjust to a substantially lower standard of living. Given the fact that re-employment opportunities for this group are minimal, this lower standard of living usually continues for the rest of their lives. Older persons who work are less likely to need the benefits provided by economic transfer programs and are furthermore able to maintain their standard of living with a form of income - wages - that has better prospects for keeping up with inflation.

Finally, studies conducted by the Department of Labor refute the notion that eliminating mandatory retirement would adversely affect employment opportunitites for women, minorities and youth. The fact that only a small percentage of persons over age 70 would actually delay retirement, coupled with the fact that older workers rarely compete with younger workers for jobs, means that eliminating mandatory retirement based upon age will have a negligible impact upon other workers.

Over the past decade, this nation has dramatically changed the way it thinks about older workers. Many firms have come to view older workers as more dependable and experienced than their younger counterparts and recognize that age is, by itself, a poor indicator of job performance. A 1983 report to Congress on the ADEA noted that, in a dramatic reversal since 1974, the overwhelming majority of Americans, regardless of age, now believe that older workers are entitled to the same basic right to remain productive members of society that all other persons have. We can no longer arbitrarily deny this right to older Americans based upon outdated, invalid and discriminatory assumptions about older workers. Mandatory retirement based on age must be eliminated.

news

FROM AARP - AMERICAN ASSOCIATION OF RETIRED PERSONS

BIOGRAPHIC SKETCH

Dr. Erling O. Johnson — Member, Board of Directors
American Association of Retired Persons

Dr. Erling O. Johnson, of Anoka, Minnesota, was elected to the national Board of Directors of the American Association of Retired Persons (AARP) at a biennial convention held in St. Louis April 24-27, 1984. He will serve six years as a board member.

He has served AARP as State Coordinator of Minnesota, and was president of the Retired Educators Association of Minnesota from 1978 to 1980.

He served as superintendent of public schools in Anoka from 1964 to 1975. Previously, he was Commissioner of Education for Minnesota from 1962 to 1964, and was superintendent of schools in Verdi, Janesville, Mountain Lake, Northfield, and Mankato, Minnesota.

He was president of the Minnesota Association of School Administrators, 1953-55; member of the Minnesota State College Board, 1962-64; member of the Metropolitan Planning Commission, 1962-64; and member of the Teachers Standards and Certification Commission, State of Minnesota, 1974-75. He is a member of the Minnesota State Board of Education on which he will serve until 1986.

He has been President of the Northfield Rotary Club and the Anoka Kiwanis Club, and has served on executive boards of the Boy Scouts of America.

He holds a master's degree in Educational Administration from the University of Minnesota (1938). He was awarded an honorary Doctorate of Humane Letters by Luther College of Decorah, Iowa, in 1962 and an honorary Doctorate of Laws by Hamline University of St. Paul in 1963.

The University of Minnesota gave him an Outstanding Achievement Award in 1958.

With a national membership exceeding 16 million, AARP is the largest national organization representing older Americans.

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6/84

For further inquiry, contact: Lloyd Wright, Public Relations
[illegible] D.C. 20049 (202) 728-4300

Mr. MARTINEZ. At this time I will turn to Mr. Pepper for questions.

Mr. PEPPER. Reference was made in a very kindly way to H.R. 4154, and I am the first name appearing on the list of introducers. I want to make it very clear for the record that the remaining introducers are Mr. Hawkins, Mr. Jeffords, Mr. Martinez, Mr. Gunderson, Mr. Roybal, Mr. Rinaldo, Mr. Biaggi, Ms. Snowe, Mr. Bonker, Mr. Tauke, and Mr. Waxman, and they have all contributed very valuably toward the furtherance of this bill.

Mr. Chairman, I want to thank very much all of the witnesses who have testified here today. I think this has been immensely valuable testimony that we have received. The personal experiences that have been told by our witnesses and the technical knowledge that they have brought to us, as well as their judgment and opinions have I think have been very pertinent and very relevant to this critical issue.

I am so glad you brought up the issue of Social Security and the relationship of this idea to the Social Security and the pension programs.

The President, as I recall, stated in his campaign in 1980 that he favored the elimination of the curtailment in Social Security benefits if one who is eligible for retirement continues to work.

I hope the President is going to revive that position. I think maybe we might well get in touch with him to see if he would still join us in advocating a modification in Social Security legislation so that when you become eligible you would get your Social Security benefits, and then you could work. Maybe people wouldn't work quite as long or quite as hard. But they would have a right to make the choice, the decision as to whether to work or not. There wouldn't be any Social Security penalty for one who wished to keep on doing something.

As Dr. Flemming said, there are two rewards that one gets for work. One is the compensation in money you receive, and the other is the compensation in satisfaction that the individual receives.

If I may say so personally, I was elected to the House of Representatives at 62. If I had been required to stop doing the things that I prefer to do at 65, I don't think I would be here. The fact that I have something that challenges me every day, every hour of the day almost, to be active, to do something, has given me an incentive to live. Perhaps it has had something to do with my longevity.

I know perfectly well what has been said here today, though the degree of your limitations increase, the degree of the increase in your limitations varies with different individuals.

I can play nearly as good golf as I ever could. That is not very good, but it is nearly as good as I ever could play. And I can't—I used to be on the cross-country team in college. I can't run 10 miles in the afternoon, but I have got a good car. If I need to go 10 miles, I can make it.

So that I know, as some of the witnesses have indicated from experience, that age doesn't deal with everybody alike, and those that have been favored with the good fortune of longer life should not be denied the privilege of sustaining that life by their labor at what they choose to do.

That is what we are talking about here today.

Mr. Martinez, I want to thank you again and your distinguished chairman and committee for your magnificent cooperation in this matter. I hope we can join hands and pledge that in this session of the Congress we can secure the passage of this legislation.

Mr. MARTINEZ. Thank you very much, Mr. Pepper. Certainly you are well-renowned for your activities on behalf of the senior citizens, the people that are aging in our society, and I would hope to join you in any efforts that you make in that area.

I would say that something has to be expounded on regarding what Mr. Pepper just said at the end of his statement that he can't run 10 miles anymore but he has got a good car to take him 10 miles. I relate that to the fact that even in work experience—you know, I can remember many times when as a young man I was rushing like a fool to try to get something done, expending a tremendous amount of energy, when some older worker, working alongside of me, would turn to me and say, look, if you do this it will be so much easier.

Maybe when you start to lose some of your physical ability, you more than make up for it with your mental abilities to devise ways to do that job easier and faster, and that experience is an asset to companies, and I think that only comes from the experience that you gain through the years that you live.

So, I think that we have to make people fully aware of the fact that where maybe physical attributes aren't as great as they were when they were young, that experience in many, many cases more than makes up for it.

So, I thank all of you for being here today, and I join Mr. Pepper in his appreciation of your testimony here today.

Thank you.

[Whereupon, at 10:30 a.m., the subcommittees were adjourned.]

[Additional material submitted for the record follows:]

321 Cherry Hill Road Princeton NJ 08540 8 March 1986

Representative Claude Pepper
U S House of Representatives
Select Committee on Aging
377 Office Building Annex 2
Washington DC 20515

Dear Representative Pepper:

Thank you for inviting me to testify before your committee. I should very much liked to have done so, but my doctor advises that after so short a time after major surgery the rigors of such a journey argue against such stress, so I very much regret that what I would otherwise have found an excellent opportunity to set out the facts against the archaic notion of mandatory retirement, is prevented by the thoughtless behavior of my now extinct gall-bladder.

"Statutory retirement, as I like to call it, because that is what it is, is one of the many wasteful notions to which our society subscribes. It is based on the wholly unsound notion that aging is the equivalent of degeneration, instead of on the idea of growing. It is because all the evidence now unequivocally shows that with the years intelligence and mental competence, even though physical competence may decrease, increases . In addition to which there is that weathered wisdom which comes with the years, and, yes, even a mental youthfulness, that only the passage through the cloudy, stormy, and pleasant years can bring. That is why I prefer to abjure the term "aging" becuase its connotations, associated with the self-fulfilling prophecy of inevitable breakdown, are so erroneous and damaging, and to use instead the term "growing," for that is what we are designed to do all the days of our lives.

We are unique, even in the Western world, in regarding the elderly as biodegradable and superfluous, instead of what they really represent: a biological elite who, with their weathered wisdom, have much to offer the world.

Aging is not a terminal illness, but a timeless estate, a rich inheritance, and is so treated in most cultures.

The failure of acceptance, the abandonment (of which statutory retirement is an expression), that so many of the elderly experience, in which they are only too frequently treated as redundant objects who have outstayed their welcome, cruelly reflects our inhuman attitudes towards the elderly, attitudes which need to be re-examined, and replaced by a view which sees age as a special privilege, and the period of most promising challenges, for it is during that time that the best of our growing still lies a head of us.

Sincerely,

Ashley Montagu

Ashley Montagu
Eighty-one years young

AMERICAN COUNCIL ON EDUCATION

Division of Governmental Relations

March 10, 1986

The Honorable Matthew G. Martinez
Chairman
Subcommittee on Employment Opportunities
Committee on Education and Labor
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

On behalf of the American Council on Education, an association representing over 1,500 colleges, universities, and other organizations in higher education and the associations listed below, we wish to convey our strong concern with the failure to include a 12-year exemption for tenured faculty and administrators in higher education in HR 4154, a bill to prohibit mandatory retirement due to age.

For several years, we have been working with interested persons in the Congress to ensure that the proposed legislation meets the needs of the entire higher education enterprise -- faculty, administration, and students. After lengthy consultations, a compromise consensus providing an exemption for 12 years for tenured personnel from uncapping the mandatory retirement age has emerged. Thus, the retirement age for tenured faculty and administrators would remain 70 until 1998. This compromise acknowledges higher education's special responsibilities to the nation and the special demographic pressures faced by our sector. Similar legislation introduced in the past contained such an exemption -- we are greatly disheartened to note that this exemption has been deleted from HR 4154.

Colleges and universities maintain that they must have a healthy representation of relatively new faculty members if they are to continue to be effective centers of teaching, learning, and scholarship. In some fields, the major contributions of an individual often are made toward the beginning of his or her career. And in all fields one needs a balance of younger faculty and more experienced faculty to stimulate students and colleagues alike by challenging old as well as new ways of thinking and by contributing varied perspectives. Unless a sufficient number of faculty positions continues to be available for new appointments, we run the serious risk of creating a "static" situation for nearly two decades ahead.

As a result of the booming expansion of the late 1950's and 1960's there is a "bulge" of faculty members now in their fifties who will not -- even under the current law -- be retiring before close to the end of this century. This factor, when coupled with the reductions in enrollment now beginning as the size of the traditional college-age population declines substantially, has already resulted in a situation where most new faculty openings will occur either through death or retirement. Although other sectors of the economy are also experiencing a period of limited or no growth, no other sector must adjust to such an extreme demographic model. Assuming an age 70 retirement,

projections suggest that there may be only about 100,000 academic positions to be filled nationally during the entire 15-year period from 1980 to 1995. This compares with about 60,000 positions in just the five years from 1971 to 1975, already generally regarded as "lean" period.

A 12-year exemption would provide institutions with the opportunity to retire a substantial number of faculty members at age 70, thereby providing a reasonable number of faculty openings during and right after that period. In addition, such an exemption would provide colleges and universities with sufficient lead time to plan efficiently for future academic needs. Thus the exemption would address the short- to moderate-term needs of the higher education community. Of course, it is impossible to predict retirement patterns and the age distribution of faculty and administrators after that period, at which time further action might be required.

We hope that you will incorporate a 12-year exemption for tenured faculty and administrators at institutions of higher education in any mandatory retirement legislation that you consider.

This letter is sent on behalf of:

American Association of Community and Junior Colleges
American Association of State Colleges and Universities
American Council on Education
Association of American Universities
Association of Catholic Colleges and Universities
Association of Jesuit Colleges and Universities
Council of Independent Colleges
National Association of College and University Business Officers
National Association of Independent Colleges and Universities
National Association of Schools and Colleges of the United Methodist Church
National Association of State Universities and Land-Grant Colleges

Sincerely,

Robert H. Atwell
President

cc: Members of the Subcommittee

IS MANDATORY RETIREMENT OVERRATED? EVIDENCE FROM THE 1970s*

RICHARD V. BURKHAUSER
JOSEPH F. QUINN

ABSTRACT

In this paper we argue that mandatory retirement is only one aspect of a much broader system that influences an individual's retirement decision. We look at responses over time to variations in mandatory retirement rules faced by a sample of private-sector workers aged 62–64 in 1973. This is done within a model that specifically includes the economic incentives present in Social Security and pension systems. We find that the impact of a mandatory retirement rule on work is considerably smaller than a simple comparison of those with and without mandatory retirement would imply.

The 1978 Amendments to the Age Discrimination in Employment Act raised from 65 to 70 the minimum age at which most workers can be forced to retire from their jobs solely because of age. This change was an attempt by Congress to reduce the incidence of age discrimination and to reverse a dramatic labor force trend toward earlier retirement over the past 35 years. In this paper we develop a methodology to estimate the potential impact of this amendment on the labor force participation rates of older workers and utilize it on a sample of men interviewed in the mid-1970s.

Burkhauser is a faculty member of the Department of Economics and the Institute for Public Policy Study, Vanderbilt University. Quinn is on the Department of Economics faculty at Boston College.

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There is little question that a mandatory retirement age affects the labor supply decisions of older workers. But it is only one aspect of a much broader social policy which will continue to influence these decisions despite the mandatory retirement age change. Thus, the analysis requires a model that includes the incentives in the pension and Social Security systems and their impacts on the retirement decision. We consider these below, along with variables generally outside the public policy realm, such as health, earnings, and marital status.

In Section I we show the incidence of mandatory retirement rules on older workers and the relationship between this labor supply constraint and the presence of pension income. A major point is that mandatory retirement frequently occurs at precisely the age at which financial incentives to retire (from Social Security and pensions) go into effect.

In Section II we develop an economic model of labor supply behavior that shows more formally the potential effect of the institutional arrangements of our pension and Social Security systems on job separation. This model allows us to estimate the effect of various retirement incentives and, therefore, to isolate the impact of mandatory retirement rules.

In Section III we present equations based on this model that predict job exit for workers not subject to mandatory retirement. We then use these results to estimate the effect of raising the minimum retirement age from 65 to 70 on the labor supply behavior of private-sector workers who were subject to such a constraint.

In Section IV we review our principal findings and use the results to predict the number of workers aged 62 to 64 who would have continued on their jobs over a two-year transition period if the 1978 Amendments had been in effect in 1973.

I. MANDATORY RETIREMENT RULES AND PENSION PLANS

The principal objection to mandatory retirement rules is that they curtail an individual worker's ability to choose when to leave a job. The elimination of such rules would ensure a worker's right to stay on the job, but would not ensure that he will actually do so. The timing of retirement will vary among individuals because of different tastes and attitudes about work and different health conditions and family responsibilities. But it will also depend on economic variables that influence the choice between continued work and retirement.

Pension plans can and do exert economic pressure on individuals to leave a job or the labor force. The very existence of a pension provides a worker with the option of leaving the job and accepting benefits after some age. For workers who do not fully anticipate these benefits or who face imperfect capital markets, the income impact of pension eligibility increases the like-

TABLE 1
RELATION BETWEEN MANDATORY RETIREMENT AND ELIGIBILITY FOR EMPLOYER PENSION BENEFITS, MEN AGED 62–64 IN 1973

Mandatory Retirement	% Workers Eligible to Collect Pension Benefits			% Population in Each Category
	During Next Two Years	Later	Never	
During next two years	77	17	6	15
Later	54	35	11	22
Never	22	25	53	63
% population in each category	37	26	37	100

Source: Retirement History Study 1973–1975.

lihood of job separation at that age. Few would object to this impact of pension plans on work. If those who chose to continue working were rewarded with increased yearly benefits that fully compensated them for the benefits forgone, only individual tastes and preferences would enter into such a choice. Such a pension system would be neutral with respect to the timing of benefit acceptance. It would encourage or discourage job separation at any particular age only to the extent that any asset affects such a decision.

But many pension systems are not neutral with respect to the timing of benefit acceptance. For both Social Security and employer pensions, the expected value of total benefits usually falls when postponed past some age. Even for those not facing mandatory retirement, such plans encourage retirement at that age.

It is important to distinguish, then, economic incentives to leave a job from those related to mandatory retirement provisions. This is especially true because the age at which pension and Social Security benefits can be received is often the same as the mandatory retirement age.

Table 1 illustrates this relationship for a sample of workers from the longitudinal Retirement History Study, described below and in the Appendix. Among workers aged 62 to 64 in 1973 who faced mandatory retirement during the next two years, 77 percent were also eligible to receive employer pension benefits from their jobs during the same period.[1] Of the remaining

1 In each of the biennial Retirement History Study surveys, workers were asked, "Is there a compulsory retirement age where you work? That is, will you have to stop working at your present job at a certain age?" By searching over the four surveys with which we were working (1969, 1971, 1973, and 1975), we compiled accurate mandatory retirement data for virtually our entire sample. For a more thorough description of the interactions in the American retirement system, see Burkhauser and Quinn [7].

23 percent, 17 percent would receive pension benefits later, and only 6 percent were never eligible for benefits. Of those subject to mandatory retirement later (after 1975), only 11 percent were excluded from pension coverage. In contrast, fewer than half of those without a mandatory retirement age enjoyed pension coverage. The remainder (53 percent) were not eligible for retirement benefits from their current employer. Mandatory retirement and pensions, therefore, usually go together, and both are expected to influence the retirement decision.

The relationship between mandatory retirement and Social Security work disincentives is also close. The most common age of mandatory retirement, prior to the 1978 ADEA Amendments, was 65, and this is precisely the age at which most workers become eligible for full Social Security benefits. Social Security wealth generally decreases with continued work after this age, when the actuarial adjustment falls from nearly 7 percent per year of delay to only 3 percent (1 percent prior to 1982). This loss in Social Security wealth if one continues working also provides an incentive to retire that is unrelated to mandatory retirement.

II. LABOR SUPPLY IMPACT OF PENSION SYSTEMS

Mandatory retirement rules are closely intertwined with Social Security and pension plans and, as we will show in this section, the terms of these plans can have an important impact on the decision of workers either to leave a job or to exit from the labor force completely. Because mandatory retirement is only one part of a broader pension system, it is a constraint upon employment only to the degree that workers would have continued at that job in its absence. Therefore, a full model of work behavior is necessary to isolate the marginal impact of a change in mandatory retirement rules.

The ideal method of measuring this impact would be through a controlled experiment in which a representative sample of workers is divided randomly between a "treatment" group and a "control" group. Since no such data exist, we utilize the best alternative—the longitudinal Retirement History Study (RHS). We develop a model which predicts the probability of job separation and movement out of the labor force for workers not subject to a mandatory retirement constraint during the sample period, and then use the estimated equation to predict the labor supply behavior for workers who are so constrained.

Mandatory retirement rules and employer pensions most directly affect job separation and only indirectly affect hours of work. For this reason, our efforts will concentrate on predicting discrete changes in a worker's behavior—that is, the probability that a worker will remain on his job, take a new job, or leave the labor force in a given period. Such a model misses the

indirect impact that pensions or mandatory retirement rules may have on changes in actual hours worked, either on a current job or in a new job, but it does capture their major direct effects. Although acceptance of pensions is almost always contingent on job separation, this is not the case with Social Security benefits. But we argue that for most workers wishing to reduce wage earnings in an attempt to increase Social Security benefits, job separation is the most likely route.

Measuring Pension Wealth

Emphasizing the wealth nature of the choice posed by both pension plans and Social Security clarifies the relationship between the timing of job separation and the actuarial value of these benefits. At any moment in time, the wealth value of a pension is the present discounted value of all future pension payments:

$$(1) \qquad WEALTH(s) = \Sigma_{i=0}^{n} \frac{p_i B_i(s)}{(1 + r)^i}$$

where s denotes the period in which pension benefits actually begin.[2] $WEALTH(s)$ is a vector of wealth values of a pension initially taken at different periods, all evaluated in present value terms adjusted to period 0. (p_i) is the probability of living through the ith period. $B_i(s)$ is the pension stream which accrues if the pension is accepted in period s (0 prior to s, $B_i(s)$ thereafter), and r is the discount rate. Like any asset, pension rights should have the usual negative impact on labor supply. But more important in our model, a pension may take on different values depending on the labor supply behavior of a worker. It is this *change* in pension wealth that we emphasize. As will be seen, mandatory retirement rules are only one aspect of the pension system used by employers to ensure job separation. Structuring pensions so that their value falls when postponed may have a similar effect.[3]

We define *DELTA* as the change in pension wealth when receipt is delayed one period:

2 We have ignored funding issues and have taken Social Security and pension promises at face value. For workers on the eve of retirement, we think that this a reasonable assumption. For younger workers, however, it is not clear that they will treat unfunded promises in the future as wealth, and therefore unclear how researchers studying wealth distributions or labor market behavior should treat these rights.

3 In a related paper [9] we argue that pension systems change an individual's net wage when they are actuarially unfair. We calculate the net earnings (wage and salary plus the change in pension wealth during the year) for a large group of older workers, and find remarkable similarities between those with and without pensions who do not have mandatory retirement. Those with pensions and mandatory retirement continue to have higher wages than the others, therefore necessitating, according to Lazear [18], the mandatory retirement constraint.

(2)

$$WEALTH(1) - WEALTH(0) - C(0) = \Sigma_{i=1}^{n} \frac{p_i B_i(1)}{(1+r)^i} - \Sigma_{i=0}^{n} \frac{p_i B_i(0)}{(1+r)^i} - C(0)$$

DELTA equals the net difference in the pension wealth minus $C(0)$, the employee's contribution to the pension system during the period. The *DELTA* value depends on the change in benefit amounts following delayed receipt. There are two possible sources of a change in B: a benefit recalculation following an additional year of work and an actuarial adjustment. In defined contribution plans, yearly benefits are based on contributions paid into the pension system. A worker continuing on his job through period 0 would increase $B(s)$ due to an increase in C. Most pension systems are defined benefit plans, however, in which there is no direct relationship between yearly contributions and benefits. In such a case, $B(s)$ will usually increase on the basis of some other criteria such as years of service, average earnings, age, etc. Actuarial adjustments are additional changes in $B_i(s)$ which compensate workers for postponing acceptance. $B_i(s)$ increases by some percentage for each year benefits are postponed. Thus, pension wealth is sensitive to the method in which benefits are adjusted, either by increased contributions or by some defined benefit rule, or because of a postponed actuarial supplement. (The assumptions behind our calculations of pension and Social Security *WEALTH*s and *DELTA*s are discussed in the Appendix.)

It is important to recognize the difference between a change in the pension wealth and the pension income available in a single year. Two workers both eligible to receive $5,000 in annual pension benefits if they leave their job today may act quite differently if the first worker, by delaying acceptance, receives substantially larger benefits in all subsequent years, while the second worker receives no increase in future benefits. In the first case, the increase in future pension income offsets the loss in benefits this year, while in the latter case, postponed benefits are lost forever.

Depending on the details of the retirement income plan, the *DELTA* value can be positive (a wealth gain under our definition) or negative (a wealth loss). In a related paper [9] we analyze the distributions of pension and Social Security *DELTA*s for the RHS sample. By age 65 (the modal mandatory retirement age prior to the ADEA Amendments) virtually all of the eligible respondents in our sample had negative *DELTA* values—that is, they would lose pension and Social Security wealth if they continued working. In that paper we treated wealth loss as a pay cut, and suggested that the structure of the pension may provide employers with an alternative to mandatory retirement to induce job exit. In this paper we test whether workers do appear to be sensitive to these incentives, and we find that they do.

The Model

We argue that pension wealth (*WEALTH*) and the change in pension wealth (*DELTA*) are the theoretically and empirically important determinants of labor supply decisions. For this reason we concentrate on these aspects of a pension rather than its value in a single year.[4] When the increase in yearly benefits associated with the new $B(s)$ just offsets the loss of benefits during the postponed period plus any additional contributions paid into the pension plan during the period, the pension is neutral and *DELTA* is zero. In such a case a pension, like any other asset, will have only a wealth effect on labor supply and that effect will be captured by the *WEALTH* term. Only when *DELTA* is positive or negative does the timing of pension acceptance have this additional effect on job separation. More formally, given equation (2), the period in which a worker decides to leave the job and collect a pension can be shown by using the indirect utility function of equation (3):

$$\mu = f[w(s), W(s), Z] \tag{3}$$

In this model an individual's well-being is a function of his/her wage earnings $w(s)$ over each period of life, pension wealth here denoted $W(s)$, and other factors Z such as marital status and other personal characteristics. Both the wage earnings and pension wealth variables can be affected by the period (s) during which pension benefits are accepted.

Equation (4) states that:

$$d\mu/dw > 0;\ \partial\mu/\partial W > 0 \tag{4}$$

that is, increases in wages or in pension wealth increase well-being. Equation (5) shows the effect on well-being of a change in the period in which pension benefits are accepted:

$$\frac{d\mu}{d(s)} = \frac{d\mu}{dW(s)}\frac{dW(s)}{d(s)} + \frac{d\mu}{dw(s)}\frac{dw(s)}{d(s)} \tag{5}$$

In a pension system that is actuarially fair with respect to age of acceptance, the pension wealth does not change with (s) and the first term in equation

4 For examples of single-period analyses of the impact of OASI on labor force participation, see Boskin [4], Boskin and Hurd [5], and Hall and Johnson [16]. The multiperiod issue of changes in the asset value of OASI is not considered in the theoretical section of Boskin and is explicitly assumed away by Boskin and Hurd. Hall and Johnson acknowledge the importance of a multiperiod model but present none. Their empirical estimate of the value of a pension is a single-year unadjusted flow value which does not make a distinction between initial or permanent benefit loss. For examples of attempts to use a replacement rate as an explanatory variable of OASI acceptance and labor force exit, see U.S. Department of Health, Education, and Welfare [23, 24]. For an example of the use of a replacement rate variable for private pension acceptance, see Barfield and Morgan [2].

(5) is zero. But if the present value of lifetime benefits falls when acceptance of benefits is delayed, this first term is negative. If the alternative wage, either in another job or in home work (leisure), is less than the wage in the current job, delaying acceptance permits continuation of the job for another period, and the second term in equation (5) is positive.

$$\mu(s^*) - \mu(s) \geq \text{for all other } s \tag{6}$$

Equation (6) states that workers will attempt to maximize their well-being by choosing a work path such that pension acceptance and job separation occur at s^*, the period for which utility is maximized. As equation (5) shows, the trade-off between potential wages and potential changes in the asset value of the pension is the crucial financial factor in the decision to separate from a job.

Employers can affect the age of retirement by tilting pension benefits to ensure that s^* occurs at the age they desire employees to separate from the firm. Mandatory retirement rules are relevant constraints to continued job tenure only if s^* is greater than the prescribed mandatory retirement age. Whether a worker completely leaves the labor force or simply changes jobs depends on whether his opportunity wage rate in alternative employment exceeds his reservation wage.

The effect of Social Security on job exit can be captured in the same way. Like pensions, after some point Social Security wealth falls and this increases the likelihood of job exit.[5] It is important to note that Social Security and pensions can affect work marginally through changes either in hours worked on the same job or in hours worked on another job, and discretely by increasing the possibility of moving from full-time work to little or no work. Our model captures discrete changes that involve either movements to new jobs or exit from the labor force. We do not predict the changes in hours that these changes might bring.

The emphasis here is on the way that pension plans influence job exit. This discrete decision is very much like the discrete decision to participate in a negative income tax program. Ashenfelter [1] points out that a family that is offered the opportunity to participate in a negative income tax program will do so if the harmful effect of participating—a decrease in the after-tax wage rate that a family member faces—is outweighed by the beneficial ef-

5 In fact, the relationship between OASI and work is more complicated. A worker who stays at a given job cannot at the same time receive a private pension from that job. This is not the case with Social Security, which exempts a certain amount of earnings ($2400 in 1974) and then reduces benefits by $1.00 for every $2.00 of wage earnings. Our model ignores this option and defines Social Security *DELTA* as the difference between current Social Security wealth and the wealth following an incremental year of work, plus employee Social Security taxes during the year. For a fuller discussion of this issue, see Burkhauser and Quinn [9]. For a complete graphical exposition of the budget constraint facing older workers, see Burtless and Moffitt [11].

fect—the increase in the guaranteed income level the family will receive. The decision to leave a job and take a pension may be similarly analyzed. It will depend on whether the fall in wage earnings is compensated for by the change in retirement income wealth from pension acceptance.

In addition to the economic variables (wage earnings, *DELTA*, and *WEALTH*), demographic and health variables are included in the empirical analysis. Sex, class of worker, and age are used to disaggregate the sample, to isolate more homogeneous groups for analysis. The sample used in this paper is non-self-employed men aged 62 to 64 in 1973. Marital status is an independent variable, as is mandatory retirement *after* the transition period (that is, after 1975). The latter is included to test for the existence of an anticipatory effect of mandatory retirement before the date occurs.

Health status has always been found to be an important variable in retirement research. When retired people are asked why they retired or left their last job, health is a frequent response. (See Barfield and Morgan [2], Reno [21], or Schwab [22].) In addition, when actual retirement behavior is analyzed in a multivariate (regression or logit) framework, health emerges as a significant explanatory variable (see Gordon and Blinder [14], Boskin and Hurd [5], and Quinn [19]). The RHS does not include clinical diagnostic data on respondents' health problems. It does, fortunately, contain a number of subjective questions concerning work limitations, health status (relative to peers), and changes in health status since the previous interview. Since we are concentrating on labor force transitions over time, we utilize health deterioration during the transition period. We have intentionally not used responses derived from questions regarding reasons for retirement, since these may be unreliable measures of health status (see Quinn [19], fn. 3).

III. DATA, RESEARCH METHODOLOGY, AND FINDINGS

This research utilizes the Retirement History Study (RHS), a ten-year longitudinal survey of the retirement process begun by the Social Security Administration in 1969. We have four years of data, at two-year intervals, on more than 8,000 respondents aged 58 to 63 in 1969. The RHS contains information on current labor force status, job history, health status, income and assets, consumption expenditures, social activities, and the labor force status and history of the spouse, if applicable. In addition, the Social Security Administration has appended its internal earnings record for each respondent, thereby permitting precise calculation of potential Social Security benefits.

In this paper we are concentrating on the group most likely to confront a mandatory retirement constraint—men aged 62 to 64 in 1973 (and therefore 64 to 66 in 1975).[6] We have eliminated certain groups, such as the bedridden

6 The sample has been disaggregated by age because these groups were subject to different Social Security incentives. Those 58 to 61 (in 1969) were ineligible for Social Security

and housebound, the self-employed, and government workers, and are left with a sample of 1,048 men, 921 who are not subject to mandatory retirement during the two-year transition period, and 127 who are.[7]

We are investigating the impact of mandatory retirement constraints on the labor market transitions of older workers. The transition we emphasize here is the decision to leave one's base-year (1973) job. Even at this age, however, a few workers who leave decide to take a new job rather than withdraw from the labor force. Empirical estimates for this second decision (new job vs. no job) are not included in the tables but are discussed and used in the simulations.

The methodology involves two stages. First we isolate those employed individuals who do *not* face mandatory retirement during the transition period and analyze the factors that explain their observed transitions. We then use these equations to predict the transition behavior of those *with* mandatory retirement, on the basis of all their explanatory variables (health, Social Security and pension status, etc.) *except* mandatory retirement. We are implicitly assuming that the two subgroups differ only in mandatory retirement and in the distribution of their other explanatory variables, but not with regard to preferences or unobserved variables.[8] We draw conclusions con-

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retired workers' benefits at the beginning of the transition period. Those 62 to 64 (in 1973) were eligible, but only for reduced benefits. The oldest group (65 to 67 in 1973) had already become eligible for full Social Security incentives. It is important to remember that although the wording of the earnings test does not change when one reaches 65, the incentives do—and dramatically. This occurs because the actuarial adjustment drops from about 6⅔ to 1 percent (3 percent as of 1982). With an actuarially fair adjustment, the incentive effect of the earnings test should be mitigated by the adjustments. Benefits forgone now (because of earnings over the exempt amount) would not really be forgone, but just delayed, and returned in the form of appropriately higher benefits later. It is not clear whether 7 percent is fair or not, in an expected value sense; it is clear, however, that it is much fairer than 1 percent or the 3 percent effective in 1982.

7 The self-employed were excluded because they work in a very different institutional environment than do wage and salary workers, and are generally unaffected by mandatory retirement constraints. The government workers are dropped primarily because of their pension situation. All federal employees (and some state and local employees) are excluded from the Social Security system and have employer (civil service) pensions that resemble Social Security more than they do most employer pensions. Since we keep Social Security and employer pensions separate in the analysis, we decided to avoid the confusion by concentrating on private-sector workers. In addition, the mandatory retirement age for most federal government workers was 70 during this time (and has since been eliminated), so there was little to be learned about this issue from this subsample.

8 This is a strong assumption. In choosing occupations and employers, workers may consider the mandatory retirement provisions. If this is true, this variable may be correlated with retirement preferences, with those who prefer to work longer underrepresented in jobs with the constraint. A full simultaneous model of the selection of job attributes (including mandatory retirement and pensions) and retirement behavior is beyond the scope of this paper. As we will argue below, however, we suspect that this bias is small and that it works to overestimate the impact of mandatory retirement, which we find to be small.

cerning the impact of mandatory retirement by comparing the predicted and actual behavior of those under the constraint. If their actual behavior is accurately predicted by these other variables, then there appears to be little impact of mandatory retirement; it is largely a redundant constraint. If large differences between predicted and actual retirement patterns remain, however, mandatory retirement may be the explanation.

Transition Equations

The transition equations are estimated with both regression and logit techniques. The regression results are included because the coefficients are direct estimates of partial derivatives (changes in probability) and are therefore easy to interpret and discuss. The logit results are introduced because they are more appropriate for estimation problems with dichotomous dependent variables. The qualitative findings and predictions are almost identical, as is shown below.

Among these 921 men employed in 1973, 49 percent held the same job in 1975, 11 percent had moved to a new job, and 40 percent held no job in 1975. What explains these differences in behavior? The empirical results for the decision to leave the base-year job are shown in Table 2. Since the dependent variable equals 1 if one does leave, these are "quit" equations.[9]

Health is clearly an important determinant in the retirement decision, and this is confirmed in our regression results (Table 2, col. 1). Health deterioration during the transition period is highly significant and lowers the probability of staying on the 1973 job by almost 10 points. Marital status and the existence of a mandatory retirement in the future were not significant determinants. The point estimates, however, suggest that married men are more likely to quit and those anticipating mandatory retirement after 1975 less likely.

The most interesting results, however, are the coefficients of the financial variables. As expected, higher earnings potential, ceteris paribus, induces older workers to stay on the job. And also as expected, financial penalties induce them to leave. Both the Social Security and pension *DELTA*s are significant explanatory variables—the higher the wealth loss that occurs with an additional year of work, the higher the probability of withdrawal from the job. Each $10,000 in wealth loss is associated with increased quit probabilities of two to three percentage points.[10] Since pensions (and *DELTA*s)

9 Our dependent variable is based on actual labor force status at two points in time, and we do not distinguish between quits (retirements) and layoffs. In this age cohort, however, among those not subject to mandatory retirement, we suspect that most all terminations are quits.

10 In this paper we are interested in the impact of changes in mandatory retirement laws on labor force participation behavior. We assume that those who have already withdrawn will not be affected by changes in a nonbinding constraint. Therefore, we concentrate only on

are correlated with mandatory retirement, we hypothesize that some of what may look like a mandatory retirement effect may really be the influence of pension and Social Security incentives. We will estimate the importance of this below.

Even if pensions did treat early and late retirements in an actuarially fair manner (and the *DELTA* values were zero), pension and Social Security programs should still have a straightforward wealth effect. The rights to future streams of retirement benefits do represent wealth and in fact are more important, in aggregate, than other more traditional forms of wealth (see Quinn [20]). Of the *WEALTH* terms, only the pension coefficient is significant. Weak wealth effects are frequently found in the retirement (and other labor supply) literature and may reflect an unobserved correlation between wealth and a proclivity for work.[11]

In the second column are the logit results. The signs and significance levels are almost identical. Health deterioration, negative Social Security or pension *DELTA* values, and pension wealth appear to induce job separation, whereas high earnings levels discourage it. Marital status, future mandatory retirement, and Social Security wealth are statistically insignificant.

As mentioned above, we also estimated equations for those who did leave their base-year jobs, to predict whether they moved to a new job or out of employment altogether.[12] The explanatory power of this equation is very low,

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those still working at the start of the transition period. The Social Security coefficients will therefore underestimate the overall impact of OASI on the population as a whole (not of interest here) because they miss the effect on those who retired at 62, perhaps in response to Social Security eligibility.

The model also understates the impact of Social Security on those in our sample by ignoring any effects on hours of work. Social Security differs from most pensions in that it permits partial retirement and continued work on the same job. There is an exempt amount before OASI benefits are decreased, and the implicit tax rate is 50 percent after that. In contrast, pensions usually require complete withdrawal from the current job, and sometimes from the industry. Since our model concentrates on discrete changes in behavior rather than on continuous changes in hours, we miss whatever hours effect Social Security induces, except when accompanied by a job change.

11 This point was originally made by Greenberg and Kosters [15]. People with a taste for work are likely to have accumulated wealth (including retirement benefits) *and* are likely to retire later than others. This is not because one causes the other, but because both are caused by this unobserved personality characteristic. This positive correlation between wealth and labor supply tends to mask the negative causal relationship which economic theory predicts.

Standard wealth variables (e.g., stocks, bonds, real estate, etc.) were not included in the final equations for two reasons. First, they are very poorly measured, and there is a high proportion of "No answer" or "Don't know" responses. Second, the variable was consistently insignificant, probably because of measurement error and the missing variable problem mentioned above.

12 The specification we use here differs slightly from those used in Table 2. First, the pension *DELTA* term is excluded since nearly all pensions require that one leave the job (and sometimes the industry), but rarely require complete labor force withdrawal. In other words,

but a few interesting results appear. Those who leave their jobs and whose health deteriorates are less likely to remain employed, though the effect is not quite significant. Eligibility for a pension on the base-year job and pension wealth are both deterrents to reemployment. Social Security wealth, on the other hand, is not significant. This difference may reflect the fact that pension rules (unlike Social Security) do sometimes prevent reemployment in the same industry. For someone with considerable industry-specific training, this constraint would mean a sizable wage decrease in alternative employment, and a large disincentive to finding a new job. Finally, the market wage rate is significant and positive, indicating that respondents are more likely to move to a new job the higher the reward for doing so.

Transition Predictions

The equations above were estimated using only those respondents who were *not* subject to mandatory retirement during the transition period. In this section we concentrate on the men in the sample who *were*. Of these men, all of whom were employed in 1973, 83 percent were out of the labor force by 1975 (see Table 3). Of those remaining in, 9 percent were still on their 1973 job and 8 percent had switched jobs.[13] This contrasts strongly with the behavior of those who were not subject to mandatory retirement by 1975. Of these, only 41 percent moved out of the labor force, 48 percent stayed on the 1973 job, and 11 percent changed jobs. These numbers represent a very large potential mandatory retirement effect. The percentage moving out of employment is more than twice as high (83 vs. 41 percent) among those with a mandatory retirement constraint. Although interesting, this is not the relevant comparison since it ignores differences in other characteristics. In Table 3, we predict how those subject to mandatory retirement would have behaved if this constraint had not existed but all their other characteristics remained

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the pension (and the *DELTA*) can be claimed in either case, so the *DELTA* should not affect the choice. Concerning the Social Security *DELTA*, the theory is less clear, since the regulations penalize earnings (after the disregard) from any source. The Social Security *DELTA* was not significant, however, and so it was dropped. Finally, the market wage is represented by an imputed wage rate (from standard human capital equations for white- and blue-collar workers separately) rather than by last year's earnings. We argue that those earnings reflect firm-specific human capital and accumulated seniority, both of which are forfeited when the base-year job is left. The imputed wage reflects the average reward paid in the market for the individual's characteristics.

13 Eleven workers subject to mandatory retirement during the transition period were found to be on the same job two years later—an apparent contradiction. There are at least three possible explanations for this. In some cases mandatory retirement provisions exist, but special exceptions can be made by management. In other cases, the mandatory retirement applies not when one turns 65, but at the end of the year in which one turns 65. Someone turning 63 in early 1973 and reporting mandatory retirement at 65 could then work all of 1975 and be found employed during the 1975 survey. Finally, there could be reporting or recording errors in the mandatory retirement or labor force data.

TABLE 2
JOB EXIT EQUATIONS FOR MEN AGED 62–64
(Dependent Variable = 1 if respondent leaves his 1973 job by 1975)

Explanatory Variables	Regression Results		Logit Results	
	B	*t*	*B*	*t*
Constant	.464		−.169	.58
Health deterioration 1973–1975	.098	2.37*	.300	1.68*
Mandatory retirement after 1975	−.050	1.07	−.087	0.43
Married	.066	1.16	.303	1.23
Earnings last year	−.010	2.76*	−.042	2.53*
Social Security *DELTA*	.019	2.30*	.112	2.83*
Pension *DELTA*	.032	2.04	.221	2.67*
Social Security *WEALTH*	.003	0.21	.029	0.52
Pension *WEALTH*	.033	2.25*	.125	1.79*
F test	4.69*		.040**	

Definitions of Variables and Mean Values

Variable	Definition	Mean Value
Health deterioration	"How would you say your health today compares with your own health two years ago? Is it better, worse, or the same?" (Worse = 1)	.25
Mandatory retirement after 1975	Mandatory retirement some time after the transition period (1973–1975)	.22
Married	(Yes = 1)	.87
Earnings last year	(Thousands of dollars)	8.78
Social Security *DELTA*	See text (thousands of dollars, at 5% discount rate)	−.19
Pension *DELTA*	See text (thousands of dollars, at 10% discount rate)	−.46
Social Security *WEALTH*	See text (ten-thousands of dollars, at 5% discount rate)	4.66
Pension *WEALTH*	See text (ten-thousands of dollars, at 10% discount rate)	.86

* Significant at 5 percent level, one-tail test.
**Likelihood ratio index.

the same. We derive these predictions from logit results (Table 2) by applying them to the mandatory retirement sample. If our predictions, which ignore mandatory retirement, turn out to be quite close to actual behavior, then

TABLE 3
TRANSITION PERCENTAGES, ACTUAL AND PREDICTED, FOR THOSE WITH AND WITHOUT MANDATORY RETIREMENT (MR), MEN AGED 62–64 IN 1973

Mandatory Retirement Status	Out of the Labor Force	Same Job	New Job
Not subject to MR: actual	41	48	11
Subject to MR: predicted	63[a]	35[b]	2[a]
Subject to MR: actual	83	9	8

a Based on an equation not shown in the text, but available from the authors.
b Based on the logit results in Table 2.

there is little room for a mandatory retirement effect. The larger the gap in predicted vs. actual behavior, the greater the potential impact of mandatory retirement.

As is seen in Table 3, differences in other explanatory variables explain much, but certainly not all, of the differences between those who are and are not currently subject to mandatory retirement. Only 41 percent of men who were not subject to mandatory retirement are out of the labor force in 1975. Of those who were constrained, we predict (with the logit results) that 63 percent would be out, but 83 percent were. Of the initial 42-percentage-point gap (83–41), 20 points are explained by other differences (83–63) and 22 points are not (63–41). From another view of the same transition, 48 percent of those not facing mandatory retirement were in the same job by 1975. Of those who did face it, we predicted that 35 percent would stay, but only 9 percent actually did. Of the 39-point differential in actual behavior, then, 13 points (33 percent of the total difference) are explained while 26 points are not.

In summary, there are large differences in labor force behavior between those who are and who are not currently subject to mandatory retirement. Those who do face mandatory retirement are more than twice as likely to leave employment as those who do not. Approximately one-half of this difference, however, can be attributed to other factors, such as the different pension incentives which apply. The remainder cannot be explained and might be attributed to the residual factor, mandatory retirement.

These unexplained residuals, however, probably overstate the impact of mandatory retirement. The distribution of workers among jobs with and without mandatory retirement may not be random, and may be correlated with retirement age preferences. For individuals who prefer to work after age 65 (or, under current legislation, 70), a compulsory retirement rule is a serious drawback. It will result in either an involuntary retirement or a job

switch at an age where job and career transitions are often very difficult. Such individuals may tend to stay away from jobs with this constraint, either by avoiding them completely or by moving out long before the compulsory date arrives. Those who prefer to retire at or before 65, on the other hand, would not view compulsory retirement provisions as a drawback and may be disproportionately represented in such jobs.

Statistically, this issue can be viewed in two ways—as a case of specification error or one of simultaneity bias. In the first, an unmeasured explanatory variable (taste for retirement) is missing and is positively correlated with one of the variables we are analyzing—the presence of mandatory retirement provisions. In the second, a dimension that we are treating as exogenous (the existence of mandatory retirement provisions) is not strictly so, but rather is jointly determined with the retirement decision we are studying. In either case, mandatory retirement will appear more important than it is.[14]

Unfortunately, this is only speculation. We can establish the direction but not the magnitude of this effect. The latter would require a complete model of initial job and job characteristics selection and job changes during the work life, and that is not the focus here. We suspect this bias is small, however, because of the long job tenure of most of our sample. More than 57 percent had been on their current jobs 20 or more years, and over 78 percent had more than 10 years of seniority. We suspect that mandatory retirement provisions, which are subject to change over time anyway, are not of major concern in the job selection process of younger workers, and therefore that the correlation with retirement preferences is low. In any case, the bias exaggerates the impact of mandatory retirement which, we will argue, is small anyway.

IV. SUMMARY AND CONCLUSION

This research suggests that mandatory retirement does have an effect on the labor supply patterns of older workers, but that it is smaller than simple comparisons of the two groups would indicate. This is because those with mandatory retirement provisions often face other factors (primarily retirement income) that induce labor force withdrawal. We have suggested that our estimates of the mandatory retirement impact are upper bounds of the actual effect. In this section we use these results to estimate the magnitude of the mandatory retirement effect, in absolute terms and relative to the size

14 Some support for this is presented by Halpern [17] who finds very few people, in either the National Longitudinal Surveys or the Surveys of New Beneficiaries, who are subject to mandatory retirement, who do not retire at that age, *and* who claim they would prefer to work longer. Our research suggests why.

of this age cohort. We do this by asking how the labor force would have changed over this two-year period if mandatory retirement at age 65 had been forbidden in 1973, as it currently is.

These estimates are, of course, only a first approximation, since they are made in a partial equilibrium framework. Ehrenberg [13] has pointed out that wages, pensions, and mandatory retirement rules are probably determined simultaneously, since they are all parts of the compensation package. In the simulations below we consider the effect of changes in mandatory retirement, but leave wage rates and pension characteristics unchanged. The ultimate impact of the change in the law will depend crucially on how firms alter these other dimensions of the package, particularly pension rules. This response remains to be seen.

It should also be remembered that these are the estimated results of a counterfactual experiment being run in the mid-1970s, prior to the change in the mandatory retirement law. Many things have changed since then. A decade of inflation has changed the real value of many employee pensions. Labor markets have weakened considerably, perhaps increasing employer pressure and decreasing employee desire to retire. And the actuarial adjustment for delayed Social Security acceptance past age 65 has been increased from 1 to 3 percent per year. This is still far less than actuarially fair, so that incentives of the type we have described still exist. Legislation passed in 1983 will gradually raise this actuarial adjustment to 8 percent between 1990 and 2009. This final rate will be close to actuarially fair and thus will substantially reduce the size of the Social Security *DELTA* for most workers. Accurate estimation of the magnitude and impact of these recent events, however, would require an analogous data set from the 1980s.

We have estimated two mandatory retirement effects. The major one is running into the constraint during the transition period and the minor one is having such a constraint later. The former was studied with the methodology discussed in this paper. For the latter, we simply inserted a dummy variable into the equations. Its coefficient was negative (suggesting that people are slightly less likely to leave their job before mandatory retirement), small, and insignificant (see Table 2). Its effect is ignored in the counterfactual experiment below which may lead to a slight overstatement of the effect of the mandatory retirement amendments on job effort.

Table 4 estimates the increase in the labor supply of men aged 64 to 66 in 1975 which would have occurred if mandatory retirement constraints had been eliminated. We begin by estimating the proportion of those men aged 62 to 64 in the labor force in 1973 who faced mandatory retirement before 1975 (now), after 1975 (later), or never. We then applied these proportions to the total population of employed men aged 62 to 64 to get the absolute number in each category (row 1). These numbers were then multiplied by the actual proportion of each group who remained in the labor force through

TABLE 4
IMPACT OF ELIMINATING MANDATORY RETIREMENT (MR)
ON THE LABOR SUPPLY OF MEN AGED 62–64 IN 1973

	Men Working in 1973 Subject to MR Rules (000)[a]				Male Population Aged 62–64 (000)	
	Now	Later	Never	Total	Total[b]	Labor Force Participation Rate[c] (Employed/Pop.)
1973	238[c]	364[c]	1,039[c]	1,641	2,376[d]	69%
Preamendment MR rules						
Still in LF in 1975	40	200	603	843	2,236[e]	38%
% decline over 1973	83%	45%	42%	49%		
Postamendment MR rules						
Still in LF in 1975	88	200[f]	603	891	2,236[e]	40%
% decline over 1973	63%	45%	42%	46%		
Change (000)	+48	0	0	+48		+2%

a Now = during the transition period 1973–1975; later = after 1975.
b Estimate derived from Social Security data.
c Percentages of male worker population subject to MR, based on Table 1. Total labor force population based on estimates derived from Social Security data.
d Estimated from BLS data.
e Survivor rate, based on life tables for men.
f Using the value of the mandatory retirement later variable at the mean value of the logit equation would reduce the work effort of this group by 4 percent.

1975, given the institutional arrangements (the pre-Amendment rules) which actually existed. These proportions, derived from the RHS sample, yield the absolute labor force magnitude in row 2. To derive the number in row 4 we added to these proportions the mandatory retirement effect and multiplied these augmented proportions by the population estimated in row 1.[15] The absolute increases in labor force participation are seen in row 6.

These rough estimates indicate that approximately 48,000 more men who were employed in 1973 would have remained so in 1975 had there been no mandatory retirement at age 65. This is an increase of about 6 percent (48/843) in the size of this employed pool. All of the increase occurs among the small proportion of men who would have confronted mandatory retirement during the period. This change would be slightly offset if we included the small (and statistically insignificant) anticipatory effect. We assume that the change in the law would have had no impact on those in jobs without mandatory retirement rules.

This increase of 48,000 men is very small when compared to the population of this cohort. It raises the labor force participation rate by only two percentage points, from 38 to 40 percent. It is much smaller, of course, when compared to the size of the total labor force.

The impact of mandatory retirement, then, is both large and small. It is large in the sense that it does have a significant effect on the labor force participation probabilities of those older men who are so constrained and who do not retire earlier. We estimate that it raises the probability of moving out of the labor force, over a two-year period, by 20 percentage points, which is about one-half of the raw differential separating the two groups. However, when we compare the actual number of men who work until they reach mandatory retirement age and would have worked longer to the size of their age cohort or the size of the labor force, the aggregate impact of the change of the law is seen to be small.

APPENDIX

The data for this research are taken from the first four waves of the Retirement History Study (RHS)—a ten-year longitudinal analysis of the retirement process undertaken by the Social Security Administration. The study began with more than 11,000 men and nonmarried women aged 58 to 63 in 1969. The respondents were reinterviewed at two-year intervals. By 1975, the last wave available when this research was undertaken, the sample was down to approximately 8,600 due to death, institutionalization, mobility, or noncooperation of some respondents. Our work is based on a subsample of these 8,600 respondents.

15 The current mandatory retirement effect is based on the logit results in Table 3 (.83 − .63 = .20).

Social Security and pension *WEALTH* and *DELTA* variables were calculated for each worker for 1974. (We observe the respondents in 1973 and in 1975. We assume those employed in 1973 remain so until 1974 and then make the labor supply decision we observe in 1975.) This was a relatively simple process for Social Security because the RHS data include actual Social Security records and because we knew the rules on which benefits are based. For each respondent we calculated:

(1) *WEALTH*(0), the present discounted value, in 1974 dollars, of the Social Security benefit stream if the individual claimed benefits in 1974 (see equation (1) in the text), and

(2) *WEALTH*(1), the present discounted value, in 1974 dollars, of the stream which would begin in 1975, after the individual worked another year. Following the zero value for Social Security receipt in 1974, $B(1)$ would exceed $B(0)$ both because of the actuarial adjustment and because of the change in average monthly wages due to increased wage earnings. We assume real wages for 1974–1975 would equal the actual 1973–1974 wages for all workers. For Social Security *WEALTH* we used a 5 percent discount rate since benefits are indexed for inflation (previously by congressional act, now by law). Pension *WEALTH* was calculated with a 10 percent discount rate since pension benefits are generally not automatically indexed for inflation after retirement. There is considerable controversy over the appropriate discount rate for Social Security. See, for instance, Blinder, Gordon, and Wise [3] and Burkhauser and Turner [10].

As described in the text (equation 2), Social Security *DELTA* is this change in the *WEALTH* value if acceptance is postponed one year plus the employee's Social Security contributions during that hypothetical year of additional work.

Pension *WEALTH* and *DELTA* estimates were more difficult to obtain since annual benefits had to be derived from individual questionnaire responses. As with Social Security, knowing a yearly pension is only the first step in estimating *WEALTH* and *DELTA* values. Because we had no details on the structure of pension plans, the following assumptions were made:

(a) The yearly benefits described by the workers did not include a joint and survivor provision, though some private pension plans do provide for actuarial adjustments for survivors' benefits.

(b) The benefit amount ($B_i(s)$) is based on years of service, so that an additional year of work increases the benefit by $1/n$, where n is the number of years with the firm.

(c) For those currently eligible for reduced but not full benefits, the benefit amount also increases because of an actuarial adjustment. Since we do not know these actuarial adjustment factors for the individual pension plans, we used very rough industry averages.

The procedure was then the same as is described above. We calculated

two values of pension wealth (with and without an additional year of work) and defined *DELTA* as the difference. A fuller discussion of the problems associated with all the variables used in our analysis is available (Burkhauser and Quinn [8]).

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12 The Effect of Pension Plans on the Pattern of Life Cycle Compensation

Richard V. Burkhauser and Joseph F. Quinn

Mandatory retirement is one means of enforcing long-term contracts between employees and firms to insure that earnings over a worker's tenure equal the value of that worker's marginal product. In this paper, we argue that pension plans provide an alternative way to enforce these contracts. In section 12.1, we discuss the implications of using pension plans as a mechanism for adjusting compensation to induce job exit. In section 12.2 we use actual earnings and pension data from the Retirement History Study to show the importance of pension benefits in labor compensation. In section 12.3, we show the effect of pension and social security rules on the pattern of net wage earnings for workers nearing "traditional" retirement age and consider their use as an alternative to mandatory retirement.

12.1 The Effect of Pension Plans on Net Wages

The passage of the 1977 Amendments to the Age Discrimination in Employment Act increased from 65 to 70 the minimum age at which a worker could be terminated for reasons of age alone. Some people have proposed that mandatory retirement be eliminated entirely. Edward Lazear has argued, however, that even in a competitive labor market, mandatory retirement may yield advantages to both labor and manage-

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ment (Lazear 1979, p. 1264). He argues that while the 1977 Amendments will aid the current group of older workers, the total elimination of mandatory retirement would reduce economic efficiency.

Lazear provides an important example of a life cycle approach to labor agreements. Once it is recognized that there is a multiperiod contract, it can be shown that the usual efficiency condition—that the wage equals the value of the marginal product (VMP)—is no longer a necessary characteristic of a competitive market. Though it is true that a worker's VMP over his tenure with a firm must equal his wage earnings over that period, wage earnings need not equal VMP during each period. "Other things equal, a worker would be indifferent between a wage path which paid him a constant dollar amount over his lifetime and another one which had the same present value but paid him less when he was young and more when he was old" (Lazear 1979, p. 1264). Other things equal, firms also would be indifferent between the two. As Lazear suggests, however, other things may not be equal, and it may pay both firms and workers to agree to long-term earning streams which pay workers less than their VMP when young and more than their VMP when old. This arrangement is superior because turnover and its attendant costs are decreased, and workers are induced to cheat less and work harder on the job (Lazear 1979, p. 1266). A necessary condition of such an agreement, however, is a mechanism for fixing a time after which the worker is no longer entitled to receive wage earnings greater than VMP. Lazear argues that mandatory retirement provides this mechanism.

Clearly, mandatory retirement rules are one means of forcing older workers to leave a job after some mutually agreed upon age. In this paper, however, we suggest that it is only one such mechanism. Firms can also use pension plans either to induce exit from the job or to reduce net earnings (as defined below) after some age. When a pension plan is part of a total compensation package, long-term contracts can be enforced through pension rules which effectively penalize workers who stay on the job "too long."

Employer pension plans are an extremely important component of the financial environment for many older Americans. These plans are complex and differ in many aspects, such as coverage criteria, age of earliest eligibility, age of full eligibility, benefit amount, and inflation protection after retirement. In empirical work on the impact of these plans on worker behavior, it is necessary to ignore many of the specifics of the plans (which are often unknown to the researcher in any case) and to summarize the plans along very simple dimensions.

The wealth equivalent of pension rights provides an excellent summary statistic of the magnitude of a plan. At any moment in time, the value of a pension to a worker is equal to the present discounted value of all anticipated future payments:

$$(1) \qquad \text{WEALTH}(s) = \sum_{i=s}^{n} \frac{p_i B_i(s)}{(1+r)^i},$$

where s refers to the time period in which pension benefits are first claimed. WEALTH(s) is actually a vector of asset values for a pension initially taken at different periods (s), all evaluated in present discounted value terms adjusted to period 0. P_i is the probability of living through the ith period, and $B_i(s)$ is the benefit stream associated with a pension accepted in period s. The discount rate is r, and n denotes the age at the end of benefit receipt (arbitrarily chosen to be 100 in this research).

Pension wealth is higher, the earlier one is eligible to accept benefits, the higher the benefits upon receipt, and the lower the relevant discount rate. The discount rate has two components: the real rate of interest (reflecting the fact that one would prefer a real dollar now to one in the future) and the expected rate of inflation (since nominal dollars in the future will buy less than they do today). In cases where plans are fully indexed (such as social security and federal government employee retirement benefits), the inflation component disappears. Where future benefits are only partly indexed (as with many state and local government plans), only the uncovered portion of inflation is included.

By structuring pensions so that their value falls when receipt is postponed past some age, employers can ensure either job exit or a reduction of real wages of workers who remain on the job past that age. We define DELTA as the change in pension wealth from period 0 to period 1 plus $C(0)$—the *worker's* contribution to the pension during the period (which is 0 in noncontributing plans):

$$(2) \qquad \text{DELTA} = \text{WEALTH}(0) - \text{WEALTH}(1) + C(0)$$

$$= \sum_{i=0}^{n} \frac{p_i B_i(0)}{(1+r)^i} - \sum_{i=1}^{n} \frac{p_i B_i(1)}{(1+r)^i} + C(0).$$

The sign and magnitude of DELTA depend on how the benefit stream changes when one delays receipt. There are two possible sources of a change in B_i: the benefit calculation formula and the postponed benefit adjustment formula. In a defined contribution pension system, yearly benefits are based on employer and employee contributions paid into the system. A worker continuing on his job until period 1 would increase $B_i(s)$ in the future because of increased contributions by him or the firm. Most pension systems are defined benefit plans, however, in which there is no direct relationship between yearly contributions and benefits. In such a case, $B_i(s)$ will increase on the basis of other criteria, like years of service, average earnings, or age.

Actuarial adjustments are additional changes in $B_i(s)$ which compensate workers for postponing acceptance. $B_i(s)$ increases by some percent-

age for each year benefits are postponed. Thus, pension wealth is sensitive to the method in which benefits are adjusted, either directly by increased contributions or by some defined benefit rule, or because of an actuarial supplement for postponed receipt.

It is important to recognize the difference between pension wealth and the pension income available in a single year. Two workers both eligible to receive $5,000 in annual pension benefits if they left their jobs today may act quite differently if the first worker, by delaying acceptance, receives a substantially larger yearly pension in the future, while the second worker receives no increase in benefits. In the first case, the increase in future benefits offsets the loss in pension benefits this year, while in the latter case, postponed benefits are lost forever.

How then does a typical pension affect life cycle earnings? For simplicity, we assume in figure 12.1 that the VMP of a worker on the job and in all other activities is constant across life, but that the employer and employee find that it is optimal to agree on a lower yearly salary at younger ages. Total yearly compensation (what we define as net earnings) equals wages and salary minus DELTA, the loss in pension wealth.[1] In this example, we assume the worker is vested at age A, first starts to receive total compensation above VMP at age B, and reaches peak total earnings and pension wealth at P. After that age, decreases in the asset value of the pension reduce net earnings until at S^* they just equal VMP.

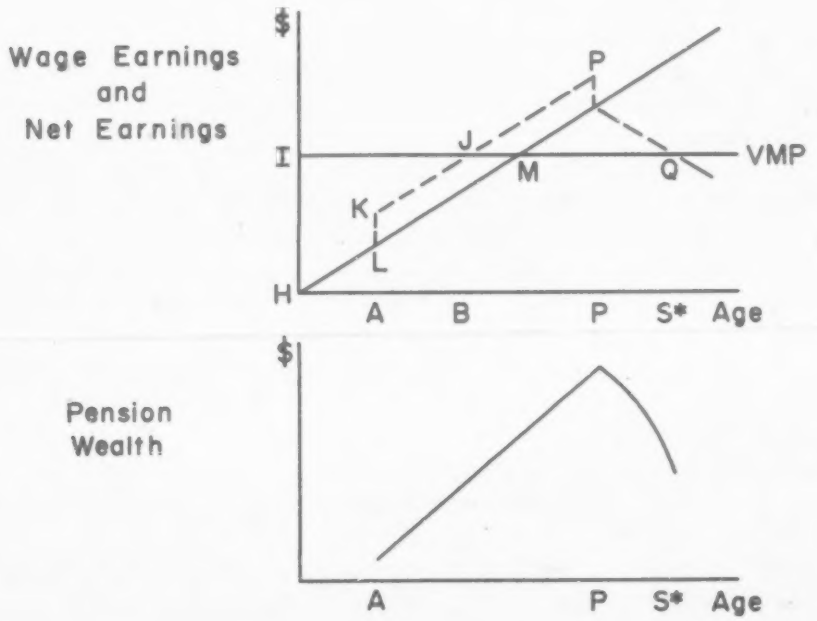

Fig. 12.1 Life cycle gross and net earnings of a worker in a given firm.

Notice, however, that lifetime earnings also equal lifetime marginal product. Hence, the area (*HIJKL*) equals the area (*JPQ*) (in present discounted value terms). The ability to mix pension benefits and salary enables the employer to decrease actual net earnings, even as wage earnings (the size of the paycheck) continue to increase. We argue that changes in pension wealth can have a significant effect on the actual net earnings of older workers and can provide employers with an alternative means of enforcing long-term labor contracts.

12.2 The Importance of Retirement Income Plans

Pension wealth is important in the retirement decision in two ways. First, it has a wealth effect as does any asset. The higher the pension wealth, ceteris paribus, the higher the probability of labor force withdrawal. But equally important, pension wealth is not a constant, it varies with the age at which the pension is claimed. This concept of wealth change (DELTA) is central to this paper, and we treat this change as a component of current compensation. When positive, DELTA represents a wealth loss—a cost to continued work, or equivalently, an earnings reduction. When negative, the present discounted value is increasing by more than the employee contributions, and net earnings are higher than they appear.

Both the WEALTH and DELTA values for workers around retirement age can be substantial. We use data from the Social Security Administration's Retirement History Study (RHS) to estimate these values. (A description of the data and the derivation of these variables appears in the appendix.) Table 12.1 shows pension WEALTH values for full-time, private sector, male workers (not self-employed) aged 63 to 65 in 1974, using 5 and 10 percent discount rates.[2] Almost two-thirds of the sample has some pension wealth (either from their current job or a previous job). Using the lower discount rate, over 5 percent of our sample (9 percent of those with pensions) has over $50,000 (in 1974 dollars) in pension wealth, and one-third of the entire sample (over one-half of those with pensions) has benefits in excess of $20,000. One measure of the value of a pension for the group is that the median pension wealth value for those with pensions—about $21,000—is over twice the value of median annual wage earnings for this group ($9,400). At the higher 10 percent discount rate, pension wealths are lower, but the median is still over $15,000—one and a half times the average annual earnings.

DELTA values for these same respondents are shown in table 12.2. These values are positive when the wealth value of a pension falls over the year. While we know the yearly pension benefit of workers in the RHS, we do not know the method used by each private pension to derive these

Table 12.1 **Percentage Distribution of Pension WEALTH for Full-Time Employed Men, Aged 63 to 65, by Age and Discount Rate (5% and 10%), 1974**

Age	0	$1–5,000	$5,001–10,000	$10,001–20,000	$20,001–30,000	$30,001–50,000	$50,001–75,000	$75,001+	*N*	Median[a]
					Discount Rate = 5%					
63	36.5	4.8	13.2	12.1	12.2	13.8	7.4	0.0	189	$21,500
64	36.2	5.5	11.0	18.1	16.5	11.0	1.6	0.0	127	$17,813
65	38.6	4.0	2.0	17.8	11.9	14.9	6.9	4.0	101	$26,250
					Discount Rate = 10%					
63	36.5	11.1	13.2	16.4	9.5	11.6	1.6	0.0	189	$15,000
64	36.2	11.0	12.6	24.4	12.6	3.1	0.0	0.0	127	$12,708
65	38.6	4.0	10.9	14.9	12.9	14.9	3.0	1.0	101	$20,417

Source: (for all tables): Retirement History Study, 1969–75.

[a]Median of those with positive pension WEALTH. Medians calculated on intervals of $2,500.

Table 12.2 **Percentage Distribution of Pension DELTAs[a] for Full-Time Employed Men, Aged 63 to 65, by Age and Discount Rate (5% and 10%), 1974**

Age	$-2,000 to −1,000	$-999 to −1	0[b]	$1–1,000	$1,001–2,000	$2,001–3,000	$3,001–4,000	$4,001–5,000	$5,001+	*N*	Median[c]
					Discount Rate = 5%						
63	3.2	21.7	43.4	20.1	4.8	2.6	1.6	0.5	2.1	189	$148
64	0.0	3.9	46.5	18.9	15.0	11.0	0.0	3.9	0.8	127	$1,156
65	0.0	1.0	47.5	10.9	13.9	12.9	4.0	4.0	5.9	101	$2,062
					Discount Rate = 10%						
63	1.6	18.0	43.4	13.8	12.2	5.3	3.2	0.0	2.6	189	$482
64	0.0	3.1	46.5	15.7	16.5	10.2	3.1	2.4	2.4	127	$1,393
65	0.0	1.0	47.5	8.9	13.9	12.9	4.0	4.0	7.9	101	$2,208

[a]The difference in pension wealth when the pension is postponed one year from 1974 to 1975. See the appendix for a fuller explanation of this variable.

[b]Some respondents have positive pension WEALTH but no DELTA because the pension was earned on a previous job. DELTA refers only to the changes in pension wealth on the *current* job, since this is the only wealth affected by current labor supply decisions.

[c]Median of those with nonzero pension DELTA. Median calculated on intervals of $250.

benefits or to change them over time. Therefore, we have used data from the Bureau of Labor Statistics' Level of Benefits Study to assign pension characteristics to workers in our sample based on their industry and occupation. Since years of service is the dominant method of calculation in defined benefits programs, we assume benefit increases are based on years of service, a value available in the RHS, and use industry and occupation averages to calculate actuarial adjustments. (A fuller discussion of our methodology is found in the appendix.)

For workers aged 63, DELTAs (discounting at 5 percent) are closely split between positive and negative values. For those aged 64 and 65, pension wealth falls with continued work for most workers. The median loss at age 65 is over $2,000—almost 20 percent of the median wage of workers aged 65 who are in jobs with pensions. For those aged 64 it is $1,156 or 12 percent, while for those aged 63 it is only $148. With the 10 percent rate, future gains are discounted more heavily, and the resultant DELTA values are slightly larger.

Using a very different methodology (data on actual pension plans are applied to hypothetical individuals), Lazear reaches similar conclusions, that the expected present value of pension rights generally declines as retirement is postponed (Lazear 1981, p. 20). He interprets this as a modern form of severance pay—a bonus to those who retire early. The terminology is different from ours, but the basic point is the same—beyond some age workers are penalized financially by their pension plans for continued work.

The incentives implicit in the social security system can be summarized in analogous fashion, although there are two complications. The first involves spouse's and dependent's benefits in the event of the respondent's death. These are important aspects of social security coverage and should be considered. In this work, we have ignored children's benefits, but have augmented social security wealth by considering the probability of the spouse outliving the respondent (using the age of each and survival tables) and collecting benefits on her own, at two-thirds of the combined rate.

The second complication concerns an option open to workers under social security, but not under private pension plans—to continue working at the same job *and* collect benefits. A worker who stays at a given job cannot at the same time receive a private pension from that job. This is not the case with social security, which exempts a certain amount of earnings ($2400 in 1974) and then reduces benefits by $1.00 for every $2.00 of wage earnings. Since we are interested in discrete changes in labor force behavior (withdrawal from a given job), and because we are primarily interested in the impact of pensions on net earnings in a given job, we have ignored this option and have defined social security DELTAs in the same manner as above—the difference between current

social security wealth and the wealth following an incremental year of work, plus employee social security taxes during that year. The more difficult it is for a worker to adjust his hours within a job, the more likely it is that discrete changes in labor force behavior will be the response to social security incentives. To the extent that workers receive benefits during that year and remain in their same job, this calculation overstates the social security cost of that employment and the disincentive to remain on the job. To minimize that problem, we have restricted our sample to those who are employed full-time and who are, therefore, least likely to combine work in the same job with social security receipt.

Tables 12.3 and 12.4 illustrate the magnitude of social security WEALTH and DELTA value to workers nearing traditional retirement age. Social security WEALTH is substantial for our subsample of full-time workers. Coverage is almost universal, and over 70 percent of this sample has over $50,000 in social security rights (1974 dollars—5 percent real discount rate). At the lower 2 percent real rate, two-thirds of this sample has over $70,000 in social security wealth. Wealth values rise or fall over time depending on whether the benefits lost by delay are outweighed by the future increments due to the recalculation of average earnings and the actuarial adjustment.

Prior to age 65, whether the actuarial adjustment and benefit recalculation outweigh the benefits lost through postponement of acceptance depends on the discount rate used (see table 12.4). When a 5 percent rate is employed, about 80 percent of the 63 and 64 year olds in our sample gain by delay. The median values of the wealth increases for those eligible for social security are $1852 (for those aged 63) and $857 (for those aged 64). When a 10 percent rate is used, only 41 percent of the 63 year olds and less than 20 percent of the 64 year olds gain, and the median wealth *losses* associated with a year's delay are $115 and $937, respectively.[3]

At age 65, when the actuarial adjustment drops to 1 percent (3 percent as of 1982), nearly everyone loses with delay, and the losses are substantial. Even with a 5 percent discount rate, the median loss in our sample is over $3000. At 10 percent, it is slightly higher.

That industrial pensions and social security benefits are a major source of wealth for workers on the verge of retirement is clearly shown in tables 12.1 and 12.3.[4] That this wealth will vary to an important degree across potential retirement ages is seen in tables 12.2 and 12.4. As we will see in the next section, ignoring the effect of these changes will lead to a significant overstatement of the actual net earnings of older workers.

12.3 An Empirical Look at Net Earnings

In this section we calculate the net earnings of men aged 59–65 who are full-time wage and salary workers in the private sector. It is this group of

Table 12.3 Percentage Distribution of Social Security WEALTH, Full-Time Employed Men, Aged 63 to 65, by Age and Discount Rate (2% and 5%), 1974

Age	0	$1–30,000	$30,001–40,000	$40,001–50,000	$50,001–60,000	$60,001–70,000	$70,001–80,000	$80,001–90,000	*N*	Median[a]
					Discount Rate = 2%					
63	36.5	4.8	13.2	12.1	12.2	13.8	7.4	0.0	189	$21,500
64	36.2	5.5	11.0	18.1	16.5	11.0	1.6	0.0	127	$17,813
65	38.6	4.0	2.0	17.8	11.9	14.9	6.9	4.0	101	$26,250
					Discount Rate = 5%					
63	5.8	5.3	7.9	12.2	68.8	0.0	0.0	0.0	189	$54,216
64	3.1	2.4	8.7	12.6	44.1	29.1	0.0	0.0	127	$56,818
65	5.9	2.0	7.9	7.9	20.8	55.5	0.0	0.0	101	$62,278

[a]Median of those with positive social security WEALTH. Calculated on intervals of $2,000.

Table 12.4 **Percentage Distribution of Social Security DELTAs,[a] Full-Time Employed Men, Aged 63 to 65, by Age and Discount Rate (5% and 10%), 1974**

Age	−$6,000 to −3,000	−$2,999 to −1,500	−$1,499 to −750	−$749 to −1	0	$1–750	$751–1,500	$1,501–3,000	$3,001–6,000	*N*	Median[b]
					Discount Rate = 5%						
63	3	51	15	14	6	11	1	0	0	189	−$1,852
64	1	34	16	29	3	12	4	1	0	127	−$857
65	0	0	0	1	6	1	2	43	48	101	$3,044
					Discount Rate = 10%						
63	0	1	3	37	6	24	24	5	0	189	$115
64	0	0	1	18	3	28	31	19	0	127	$937
65	0	0	0	0	6	0	3	28	63	101	$3,586

[a]Social security DELTA is the change in social security wealth if receipt is postponed one year (from 1974 to 1975), plus employee social security taxes paid during that year. Because of the peculiar technique used by the social security system to adjust postponed benefits, 5 and 10 percent discount rates were used in this table rather than the 2 and 5 percent rates used for social security WEALTH. (See note 3 and Burkhauser and Turner 1981).

[b]Median of those with nonzero social security DELTA.

men nearing "traditional" retirement age who were expected to benefit most from the change in the mandatory retirement law. Using the first four waves of the RHS (1969–75), we study men who were aged 59–61 in 1970 and these same men aged 63–65 in 1974.[5] All the men in our sample remained on their same full-time jobs from 1969 to 1973. We analyze the effect of the private pension system on the net earnings of these men and, more importantly, on the relationship between the net earnings of workers with and without pensions and mandatory retirement.

Table 12.5 presents the median earnings and median net earnings (earnings minus private pension DELTA) at various ages for three subsamples defined by pension and mandatory retirement status. (A fourth group, those without pensions but with mandatory retirement, was too small for analysis.) As can be seen, workers with pension plans have higher earnings than those without such plans regardless of mandatory retirement.

What then is the effect of pension rules on net earnings in this age group? How do pensions relate to mandatory retirement as a method of assuring that lifetime contracts are enforced? In table 12.6, we calculate the ratio of earnings net of pension DELTA to unadjusted earnings for those who are eligible for pensions.[6] (For those not eligible for pensions, the ratio (as defined so far) would be 1.) The impact of age can be seen in two ways. The median ratios decrease monotonically, and decline to 0.83 by age 65. In addition, the display of the distribution illustrates the shift from ratios above 1 at the younger ages to below 1 later on. At ages 59 and 60, for example, most of these workers are enjoying a slight supplement to pay because of increasing pension asset values. By 64 and 65, however, nearly all are losing, and a substantial proportion is experiencing a pay decrement of over 20 percent.

Table 12.7 shows another interesting result. Here we compare the median net earnings of those with pensions to that of those without. We disaggregate the pension sample by mandatory retirement status and simply create ratios from the columns in table 12.5. For those without mandatory rules, we find that the median net earnings of the pension subsample has dropped to precisely that of those without pensions by age 65 (i.e., the final ratio in the first column is 1.00).[7] For those with a pension and with mandatory retirement, the ratio also falls, but only to 1.19.

These results are preliminary and are based on small samples. But they strongly suggest that pension systems do eventually reduce the true earnings of older men who continue on their same job. In fact, the difference in earnings between workers with and without pension plans narrows dramatically as workers approach age 65, and for those in our sample, it disappears entirely for workers not subject to mandatory retirement.

Table 12.5 **Median Earnings and Earnings Net of Pension DELTA[a] by Age and by Pension and Mandatory Retirement Status**

	Without Mandatory Retirement Without Pension Benefits			Without Mandatory Retirement With Pension Benefits			With Mandatory Retirement With Pension Benefits		
Age	Wage Earnings	Net Wage Earnings	*N*	Wage Earnings	Net Wage Earnings	*N*	Wage Earnings	Net Wage Earnings	*N*
59	$6,292	$6,292	65	$ 8,250	$ 8,188	38	$ 8,700	$ 8,583	69
60	5,750	5,750	50	7,750	8,250	32	8,312	8,188	36
61	6,594	6,594	42	7,833	8,167	19	10,027	10,292	34
63	7,750	7,750	66	10,250	10,458	38	11,250	10,786	69
64	6,521	6,521	50	10,075	9,479	32	9,791	8,441	36
65	7,813	7,813	42	9,750	7,833	19	12,250	9,321	34

[a]Pension DELTA with 5 percent discount rate. Earnings are in 1970 dollars for ages 59–61, and in 1974 dollars for ages 63–65. Medians based on intervals of $500.

Table 12.6 **Percentage Distribution of Ratio of Earnings Net of Pension DELTA to Earnings for Those with Pensions, by Age and Mandatory Retirement Status**

Age	Less than .80	.80–.90	.91–.95	.96–1.00	1.01–1.05	1.06–1.10	1.11–1.20	1.21–1.30	Median Ratio
Without Mandatory Retirement									
59	11	0	5	5	39	39	0	0	1.04
60	3	9	6	9	44	16	9	3	1.03
61	16	0	5	11	53	5	5	5	1.03
63	11	8	11	18	37	13	3	0	1.00
64	28	28	25	16	3	0	0	0	0.88
65	42	21	11	26	0	0	0	0	0.83
With Mandatory Retirement									
59	7	3	1	13	41	26	9	0	1.03
60	7	3	0	19	50	17	3	3	1.02
61	6	6	15	24	29	21	0	0	1.00
63	9	9	20	23	23	13	3	0	0.98
64	25	42	8	14	8	3	0	0	0.86
65	35	53	6	3	3	0	0	0	0.83

Table 12.7 **Ratio of Median Net Earnings of Those with Pensions, by Mandatory Retirement Status, to Median Net Earnings of Those without Pensions**

Age	Without Mandatory Retirement	With Mandatory Retirement
59	1.30	1.36
60	1.43	1.42
61	1.24	1.56
63	1.35	1.39
64	1.45	1.29
65	1.00	1.19

Source: Net wage medians in table 12.5.

The net earnings of workers subject to mandatory retirement also decreased as they neared age 65. Nevertheless, their net earnings were still about 20 percent greater than net income of those not subject to mandatory retirement rules. In fact, this may be the reason why mandatory retirement was a necessary part of the personnel strategy in these firms.

In table 12.8, we add the effect of social security DELTAs, using a 5% discount rate. As mentioned above, workers can continue on their job and receive social security benefits. For workers who do both, the DELTAs used here exaggerate the losses. Nevertheless, the results are provocative. Here we calculate the ratio of earnings net of both pension and social security DELTAs to current earnings for those with and without pensions. The medians suggest that pensions and social security on average provide a slight wage increase up to age 65. These medians hide a considerable amount of dispersion, however. Among those 59–61, for example, between a sixth and a third of those with pensions lose retirement wealth if they continue to work. At age 65, the median ratio is about two-thirds for those without pensions and nearly down to one-half for those with a pension. Thus, measures of compensation which do not take the effect of pensions and social security into consideration dramatically overestimate the value of continued work at this age. For the median workers in our sample eligible for both social security and pension benefits at age 65, unadjusted wages overstate true earnings by almost 100 percent.

In this paper, we have described and estimated some of the work (or retirement) incentives implicit in current pension and social security rules. But we do not estimate the impact of these incentives on labor supply. In a related paper, however, we do and find that changes in pension and social security wealth are significant explanators of the labor supply behavior of older Americans (Burkhauser and Quinn 1983). The

Table 12.8 Percentage Distribution of Ratio of Earnings Net of Pension and Social Security DELTA to Earnings, by Age and Pension Status

Age	.70 and less	.71–.90	.91–.95	.96–1.00	1.01–1.05	1.06–1.10	1.11–1.20	1.21–1.30	1.31+	Median Ratio
Without Pensions										
59	0	0	0	6	23	41	24	6	0	1.07
60	0	0	0	0	22	44	30	2	2	1.08
61	0	0	2	7	19	33	31	7	0	1.08
63	0	3	6	11	12	11	24	23	11	1.13
64	6	4	8	10	16	6	32	10	8	1.10
65	74	17	2	7	0	0	0	0	0	0.65
With Pensions										
59	6	4	1	3	17	29	35	7	0	1.08
60	4	1	3	7	12	29	35	3	4	1.09
61	6	8	4	13	11	23	32	2	2	1.07
63	6	1	6	12	7	11	34	17	7	1.12
64	15	18	13	9	15	4	22	4	0	0.97
65	92	6	2	0	0	0	0	0	0	0.52

larger the DELTA values, the higher the probabilities that respondents leave their jobs over a two-year transition period. In fact, these variables do a better job of predicting transition behavior than do simple eligibility dummies. This is evidence that these incentives are important and that workers both understand their general nature and respond to them.

12.4 Conclusions and Data Needs

Mandatory retirement is one method of enforcing long-term contracts so that the earnings of a worker over his tenure with a firm will just equal the value of his marginal product. In this paper, we suggest that it is not the only method of enforcing such contracts. Pension plans which vary in value across life enable employers to reduce earnings at older ages even when wage and salary payments as traditionally measured are increasing.

Using data from the RHS we show that pension WEALTH is an important component of a worker's wealth portfolio and that pension DELTAs significantly affect net earnings as workers approach traditional retirement age. In fact, a measure of compensation which includes pension DELTAs shows that workers in our sample who are not subject to mandatory retirement earn approximately the same amount for work at age 65 regardless of whether or not they are eligible for a pension. For those who are subject to mandatory retirement, earnings net of pension DELTAs fall as they approach age 65 yet still exceed the net earnings of those without pensions and mandatory retirement. Thus, firms do appear to have some motive to use mandatory retirement to enforce job exit. But adjustments to pensions also are used and appear to be an important alternative method of enforcement. Once social security is considered it is even less likely that workers will continue to work past the traditional retirement age.

There are at least two implications of these findings with respect to mandatory retirement. The first is that mandatory retirement is less important than a simple comparison of workers with and without these provisions would suggest. This is because mandatory retirement often occurs at precisely the time that these strong social security and pension incentives go into effect. A simple comparison implicitly attributes the impacts of all of these factors to mandatory retirement, and thereby exaggerates its effect. In our paper (Burkhauser and Quinn 1983), we estimate that approximately half of the raw differential in quit behavior can be attributed to factors other than mandatory retirement.

The second implication concerns the labor market repercussions to be expected from changing the age of mandatory retirement (as Congress has done) or from eliminating it altogether (as has been suggested). Our research indicates that the effect will depend dramatically on the extent to which employers can change other aspects of the employment agree-

ment, particularly the details of the pension system. With enough leeway, we would argue, firms can bring about retirement patterns very similar to those observed with mandatory retirement.

A major shortcoming of this research is the lack of knowledge about respondents' pension plans—how benefits are determined and how they change over time. This knowledge is needed for two reasons. It is required in order to calculate DELTA values more precisely and to judge more accurately the impact of these incentives on retirement behavior. In addition, it is important baseline data from which to measure changes in pension rules in response, partly, to changes in mandatory retirement options.

Specific data on individual pension plans are collected by the Department of Labor and have been used by researchers (Lazear 1981 and Urban Institute 1982). But such data are not generally available about the respondents who appear in large microeconomic surveys, such as the Retirement History Study. In other words, we have longitudinal microdata sets with superb demographic and economic data, but with very little detail on pension plans, and we have excellent pension data with little or no personal data on the individuals covered.[8] That we do not have both is particularly unfortunate because there is considerably more diversity across pension plans than across social security. A much larger proportion of the population is not covered, and for those workers who are, the variation in benefit levels is extreme.[9] Linking these two types of information is not a simple process. Asking individuals about the details of their pension plans (beyond information like age of eligibility and amount expected) is probably fruitless. Using existing Department of Labor files on pension plans has not been successful. And even asking firms may not always be the answer, because often they do not administer their own pension plans. The cost of gathering this institutional information is high. But so, we would argue, is the benefit. In the meantime, we must continue to use broad industrial and occupational averages for the benefit calculation rules, as we have done in this paper, and accept the biases which such measurement error entails.

Appendix

The data for this research are taken from the first four waves of the Retirement History Study (RHS)—a ten-year longitudinal analysis of the retirement process undertaken by the Social Security Administration. The study began with over 11,000 men and nonmarried women aged 58–63 in 1969. The respondents were reinterviewed at two-year intervals. By 1975, the last wave available when this research was undertaken, the sample was down to approximately 8,600 due to the death, institu-

tionalization, mobility, or noncooperation of some respondents. Our work is based on a subsample of these 8,600 respondents. (For more detail on the RHS, see Irelan [1976].)

Social security and pension WEALTH and DELTA variables were calculated for each worker for 1970 and for 1974. This was a relatively simple process for social security because RHS data include actual social security records, and because we knew the rules on which benefits are based. For 1970–71, for example, we calculated

(i) WEALTH(0), the present discounted value, in 1970 dollars, of the social security benefit stream if the individual claimed benefits in 1970 (see eq. [1] in the text), and

(ii) WEALTH(1), the present discounted value, in 1970 dollars, of the stream which would begin in 1971, after the individual worked another year. Following the zero value for social security receipt in 1970, $B(1)$ would exceed $B(0)$ both because of the actuarial adjustment past age 62 and because of the change in average monthly wages due to increased wage earnings. We assume real wages for 1970–71 would equal the actual 1969–70 wages for all workers. Because these calculations are sensitive to the interest rate, we use a 2, 5, and 10 percent rate, both here and in the pension estimates.

As described in the text (eq. [2]), social security DELTA is this change in the WEALTH value if acceptance is postponed one year plus the employee's social security contributions during that hypothetical year of additional work. This same process is then repeated for the entire sample in 1974.

Pension WEALTH and DELTA estimates for 1970 and 1974 were more difficult to obtain, since annual benefits had to be derived from individual questionnaire responses. As with social security, knowing a yearly pension is only the first step in estimating WEALTH and DELTA values. Because we had no details on the structure of pension plans, the following assumptions were made:

(a) The yearly benefits described by the workers did not include a joint and survivor provision, though some private pension plans do provide for actuarial adjustments for survivors' benefits.

(b) The benefit amount ($B[s]$) is based on years of service, so that an additional year of work increases the benefit by $1/n$, where n is the number of years with the firm.

(c) For those currently eligible for reduced but not full benefits, the benefit amount also increases because of an actuarial adjustment. Since we do not know these actuarial adjustment factors for the individual pension plans, we used very rough industry averages. (These averages were taken from Urban Institute [1982], which used data from the BLS Level of Benefits Study).

The procedure was then the same as is described above and in equa-

tions (1) and (2) for both 1970 and 1974. We calculated two values of pension wealth (with and without an additional year of work), and defined DELTA as the difference. The derivations were again done with 2, 5, and 10 percent discount rates. A fuller discussion of the problems associated with all the variables used in our analysis is available (Burkhauser and Quinn 1983).

Notes

1. A comprehensive definition of compensation is obviously broader than this, and should include other fringe benefits (such as medical, disability and life insurance, paid vacations, etc.) as well as nonpecuniary aspects of the job, like working conditions and employment security. These are not included here because they are not the focus of the paper and because we have no data on them for the respondents in our sample. Changes in these other dimensions of compensation after a particular age (for example, a cessation of medical benefits after age 65) could certainly be important, and would have the same type of effect as would a decrease in pension wealth.

In this paper, DELTA is defined to equal the loss in pension wealth plus employee contributions during the year. For ease of exposition, the latter phrase is often dropped. Operationally, for employer pensions we assumed $C(0)$ was zero; for social security we used employee payroll taxes in a given year.

2. Private pensions include all employer pensions, but do not include social security, which is considered separately. Most private sector pensions are not automatically indexed for inflation after retirement, so a nominal rate of interest should be used in discounting. The early 1970s were a transitionary period for inflationary expectations, so we use two discount rates, 5 and 10 percent. When we consider social security benefits below, we use lower real rates (2 and 5 percent) since benefit adjustments have traditionally been greater than or equal to the cost of living—previously by congressional action and now by law.

3. Due to a quirk in the social security law prior to 1977, we employ higher discount rates for the social security DELTA than for social security WEALTH. From 1961 to 1977, the *absolute* cost of living raises given to those who retired early at actuarially reduced amounts were the same as the increments to those who claimed benefits at 65 (Burkhauser and Turner 1981). The penalty for early retirement was therefore a constant *dollar* amount, not a constant percentage. One discounts a constant dollar amount with the nominal rate of interest, not the real rate used with social security wealth.

It should be remembered that social security DELTA contains both the change in wealth (usually a loss at age 65) plus the employee's social security contribution during the year. The full-time workers in our sample are disproportionately high wage earners, so their DELTAs are generally higher than those in the general population.

4. This point is confirmed in a related paper, in which pension and social security wealth are explicitly compared to other more traditional forms of wealth—financial assets and net equity in the home, business, or real estate (Quinn 1983). It is found that for many workers in this age group the asset value of retirement rights dominate all other forms of wealth, including the value of the home.

5. The Retirement History Study reinterviewed the sample at two-year intervals (1969, 1971, 1973, and 1975), and these are the four snapshots we have. We assumed that respondents maintained their initial labor force status until the middle of each two-year interval and then made whatever transitions we observed in the subsequent interview. Hence, we refer to men aged 59–61 in 1970 and 63–65 in 1974.

6. We are grateful to Cordelia Reimers for suggestions on the restructuring of tables 12.6 and 12.8.

7. Since the magnitude of the pension DELTA values increases with age, we suspect that the pattern illustrated in table 12.7 is actually smoother than it appears, and the decline in the ratio more gradual. Unfortunately, our particular sample of respondents with neither mandatory retirement nor pensions includes one age group (60 in 1970 and 64 in 1974) with particularly poor earnings (see table 12.5). When they are compared with the subsamples with pensions, the ratios are very high. We suspect that this would not be the case in a larger sample.

8. The Department of Labor has a data source which combines information on the details of several hundred plans with the social security data on approximately 400,000 individuals in these plans. With respect to demographic and other economic variables, however, the research is limited to the very sparse detail on the social security earnings record. There have been proposals to combine this source with current microsurveys (such as the Survey of New Beneficiaries or the Exact Match File), but so far this has not been done.

9. For example, using 1975 data on 244 pension plans from the Bankers Trust Study of Corporate Pension Plans, and a 10 percent discount rate, Lazear finds pension wealth for hypothetical individuals ranging from about $400 to over $400,000 (Lazear 1981, p. 19).

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Comment

Cordelia W. Reimers

This paper opens up a large terrain for future investigation. The basic insight about changes in the asset value of pensions being a component of net earnings—one that these authors have written about before—is unassailable, and the empirical work is sufficient to establish the practical importance of pension rules as a mechanism for reducing the net earnings of older workers and, presumably, encouraging retirement. Burkhauser and Quinn have clearly put their collective finger on an alternative mechanism to mandatory retirement.

The actual numbers they report are, as they are the first to say, preliminary, based on very small and restricted samples and hampered by the lack of information on respondents' pension plans that plagues most research on retirement behavior. I would therefore not make too much of the exact numbers reported here, but would urge Burkhauser and Quinn, and others, to try to refine these estimates further.

For instance, if we are to believe these numbers, DELTA (even taking private pensions alone) does not appreciably reduce median net earnings before age 64; and social security appears to *increase* median net earnings before age 65. Yet most men currently retire before that age. Mandatory retirement cannot be the reason, either, so it appears that we have still not got a satisfactory explanation of observed retirement behavior.

But there are several ways the numbers might be improved upon, even with existing data, before abandoning the hypothesis. I shall discuss four problem areas: the calculation of the private pension DELTAs; the model of the retirement decision; the use of the median earnings of those without pensions as evidence on the alternative wage; and the biases involved in the choice of samples for study.

I can't say much about the way the private pension DELTAs were calculated, because the appendix is too vague on this point. But one question does arise regarding these DELTAs. To get around the lack of information in the Retirement History Study about benefit formulas, the authors use industry-occupation averages for certain pension plan characteristics. To evaluate this strategy, it is important to know how much pension plans vary among firms, *within* an industry and occupation. How much of the true variation in DELTA is being lost by this imputation? If industry-occupation averages are much alike, but firms vary a great deal, Burkhauser and Quinn's method will produce a much narrower distribution of private pension DELTAs than actually exists. Then the distributions of private pension DELTAs and of the net earnings/current wage ratios would be more spread out in reality than appears in tables 12.2,

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12.6, and 12.8 of the paper. How this might affect the medians is anybody's guess.

On a related point about measurement, these net earnings/current wage ratios should of course be measured, insofar as possible, net of taxes and inclusive of other fringe benefits—especially those that change with age. It's not clear that taxes have been netted out of the numbers reported in the paper.

I now turn to the way Burkhauser and Quinn model the retirement decision and use the numbers as evidence bearing on the hypothesis that pension rules induce retirement. First, their model of the retirement decision, while a major improvement over one that simply compares the current period's wage and pension benefit, is still too myopic. There is no more reason for a worker to consider only his current period wage than only his current period pension benefit. The optimal timing of retirement involves comparison of the present values of the entire *streams* of future wages, alternative wages (or values of nonmarket time), and pension benefits. To use a one-period wage comparison in modeling retirement, one must assume that once net earnings dip below the alternative wage, they remain there forever after. (To see this, ask yourself why we do not expect a man of 35 to retire from the labor force just because he has a spell of disability or unemployment that drastically, but temporarily, reduces his market wage.) We may be perfectly comfortable making this assumption for older men, but we ought to be explicit about it.

Second, the numbers in table 12.7 of the paper appear to be presented as evidence about whether the private pension DELTAs are large enough to induce retirement. But there are several difficulties in interpreting them that way. If we are trying to explain retirement, we will want to know how a man's net earnings compare with his own alternative, or reservation, wage. If we know how much pension DELTAs reduce net earnings, one additional piece of information is needed: how the net earnings compare with the alternative wage. Burkhauser and Quinn seem to interpret their table 12.7 as if it contained that sort of information. What it does show is the ratio of median net earnings of those *with* a pension to median earnings of those *without* a pension, allowing for the private pension DELTA only.

To interpret these ratios as containing any evidence at all about whether pensions reduce net earnings enough to enforce job exit requires four assumptions about the median alternative wage: (1) that it is the same for those with and without a private pension; (2) that it is the same for those with and without mandatory retirement; (3) that it is equal to the median current wage of those who have no private pension; and (4) that the distributions of individuals' net earnings and alternative wages just happen to be related in such a way that the ratio of the medians is equal to the median ratio.

Given these four assumptions, we could conclude from table 12.7 of the paper that, for those without mandatory retirement, the private pension plan alone is sufficient to reduce net earnings to the alternative wage level for half the sample at age 65. We could also conclude that, where it exists, mandatory retirement is needed because the private pension plan does not sufficiently reduce median net earnings. These are, in fact, the conclusions drawn by Burkhauser and Quinn.

However, I think it highly unlikely, first of all, that the median alternative wage is the same across pension-mandatory retirement status, or is equal to the no-pension wage. The idea of comparing net earnings of people with and without pensions to get a comparison of a person's net earnings and alternative wage would be justified by a model in which people are randomly assigned to pension-mandatory retirement status and are identical in other respects—in particular, their alternative wage. Moreover, those without pensions would have to be in a spot labor market, where wage = VMP at all times. But this model violates the basic fact that pension-mandatory retirement status is not random, but results from a selection process such as Walter Oi discusses in his paper in this volume.

For one thing, we know private pension coverage is positively correlated with education. Besides, workers will tend to sort themselves among firms on the basis of mandatory retirement and their own preferences for leisure (i.e., their reservation wages). Furthermore, even on most jobs without pension plans the wage probably includes some return to firm-specific human capital and therefore is above the alternative wage. Some effort to standardize for education and other determinants of the alternative wage should be made before comparing net earnings across pension and mandatory retirement categories. Moreover, Burkhauser and Quinn's table 12.7 completely ignores social security, and it is the *combined* effect of social security and a private pension plan that determines whether mandatory retirement is necessary to end the period when $W > \text{VMP}$.

Even if we could accept assumptions (1) through (3), however, and take the median no-pension wage as a measure of the median alternative wage for those with pensions, there is a serious problem with using the ratio of these medians as evidence on the distribution of the ratio of the two variables. Individual workers' net earnings/alternative wage ratios are the variable of interest; yet what Burkhauser and Quinn report is not, even under assumptions (1) through (3), the median ratio, but the ratio of median net earnings to the median alternative wage. This may be quite misleading. Suppose, for example, net earnings were distributed as in figure C12.1A, and the distribution of alternative wages looked like figure C12.1B, with everyone's rank order being preserved. Then the *ratio of medians* = 1, but the *median ratio* is clearly much greater than 1.

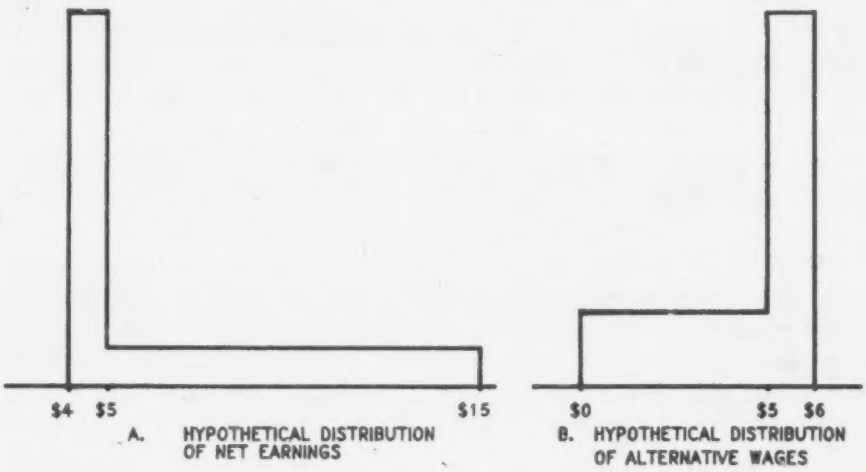

Fig. C12.1

(In fact, it would be about 1.8.) It is obvious that we cannot, in general, learn much of value about the median ratio by looking at the ratio of the medians.

Turning now to the authors' choice of samples for study: is it really necessary to confine the samples to *full-time* workers, and in some cases to those who were in the *same full-time* job in 1969 and 1974? If the hypothesis underlying the paper is correct, men over 60 with large positive DELTA are more likely to retire, other things being equal. This presumably biases the samples toward those men with small or negative DELTA (though the bias, in fact, depends on the correlations among DELTA, wages, and reservation wages). This could explain the authors' finding that median net earnings are not appreciably reduced by private pensions before age 64.

Burkhauser and Quinn are concerned that people who take social security benefits while keeping the same job would bias their estimates of the social security DELTA upward, if they included part-time workers. They could presumably determine from the Retirement History Survey how widespread this practice is. My guess is that it's rare, because it is hard to adjust hours drastically on the same job, and that the downward bias of DELTA from selecting only full-time workers is more serious. This bias question is further complicated by the information in note 3 of the paper, that the social security DELTAs are biased *upward* because the sample members tend to be high wage earners.

Those are the main things that bother me about this paper. These criticisms should not obscure the useful contribution that Burkhauser and Quinn have made in emphasizing the potential importance of pension

DELTAs and in actually calculating a thought-provoking, albeit preliminary, set of estimates. I am sure we shall soon be seeing a variety of efforts to produce better estimates of DELTA, net earnings, and alternative wages. I shall conclude with a few words about the broader research agenda in this area of pensions and mandatory retirement.

Lazear (1979) pointed out that, if you have a long-term contract with $W < \text{VMP}$ at first and $W > \text{VMP}$ later, some cutoff mechanism is necessary, and mandatory retirement rules can play this role. In this paper, Burkhauser and Quinn show that pension plans may be structured with large positive DELTAs after a certain age and can then play the same role as mandatory retirement in a long-term contract. But these mechanisms are not identical, and none of this tells us why either mandatory retirement or nonactuarially fair pensions exist in the first place, nor why we see them used instead of simple wage reductions to terminate the period when $W > \text{VMP}$ in a long-term contract. There may be some clues in the types of firms and workers that do and don't have mandatory retirement and pensions with large DELTAs. Perhaps one mechanism is more efficient than another, depending on the circumstances. Perhaps they act in different ways to sort workers among firms according to workers' preferences about how long to work. The costs associated with the various cutoff mechanisms need investigating before we will know the true costs of raising or abolishing the mandatory retirement age. Burkhauser and Quinn make a start in opening up this important subject.

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Influencing Retirement Behavior:

A KEY ISSUE FOR SOCIAL SECURITY

Joseph F. Quinn
Richard V. Burkhauser

Abstract

Recent trends toward earlier retirement threaten future supplies of labor and the financial stability of many of our public and private pension systems. One of the few federal efforts now in place to reverse this trend has been the 1977 law outlawing mandatory retirement before age 70 for most American workers. This legislation by itself will have little effect on retirement patterns, because strong financial incentives to retire remain imbedded in the system. Changes in the Social Security Act enacted this year begin to recognize these incentives but are highly controversial and at best will not begin to go into effect until 1990. To be successful, efforts of policymakers to increase work at older ages must focus on the financial incentives at the heart of retirement plans rather than on merely attempting to weaken mandatory retirement constraints.

Two current trends threaten the financial viability of the Social Security system and the future labor supply of workers. One is the dramatic shift toward earlier retirement observed over the past three decades. The other is the aging of the American population, a trend that will continue through the first quarter of the next century. Although public policy can do little about demography, it can influence retirement decisions.

The recent retirement trend is not at all surprising given the financial incentives contained within our Social Security and employer pension programs. The aggregate impact and importance of these work disincentives will grow as the proportion of the population around traditional retirement age continues to increase. This

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possibility suggests a policy problem of the first magnitude, with consequences in many domains of public policy.

RETIREMENT TRENDS

The Patterns

Retirement patterns have changed dramatically since 1950. Whereas market work by men over 65 was once the norm, it is now relatively uncommon. Figure 1 documents these trends. Data from the federal government's decennial census and Current Population Survey series show that between 1950 and 1980 the labor force

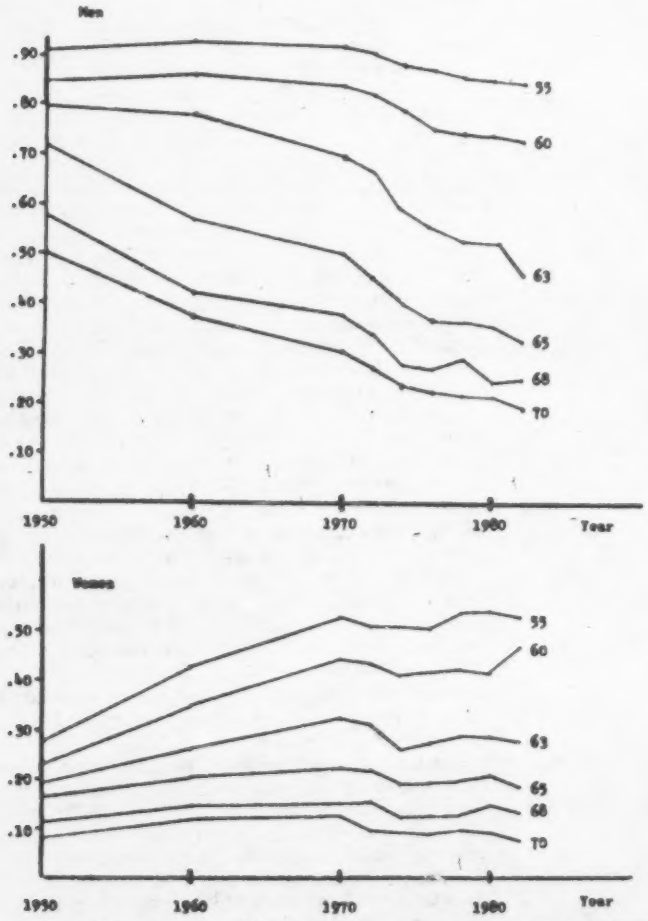

Figure 1. Labor force participation rates, men and women, 1950 to 1982.

participation rate of men aged 65 fell from 72 to 35%. The trend is equally clear but less dramatic for younger men. For those over 65, the proportionate decrease is even more precipitous.

If "normal" retirement age is defined as the age at which at least half of the cohort has droped out of the labor force, then Figure 1 can also be used to document the change in this age over time. In 1950, it was not until age 70 that the participation rate of men fell below 50%. By 1970, "normal" retirement age had fallen to 65. By 1982, it was below 63. Only 1 man in 3 was still working at 65, and only 1 in 5 at 70.

Retirement patterns for women are more complicated because two trends are at work. People are retiring earlier, but women are more likely to be in the labor force than they used to be. For women over 62, these forces appear to offset each other; their labor force participation rates have remained relatively constant since 1960. For women 55 to 60, the proportion at work has grown. When the data for men and women are combined, however, the conclusion is clear—people are leaving the labor force earlier than they used to.

Reaction to the Trend

Until recently, there was no particular alarm over this trend toward earlier retirement. If anything, it was applauded. It has been suggested that one of the goals of the architects of the Social Security system was to permit (or induce) older workers to withdraw from the extremely weak labor markets of the late 1930s.[1] Although that goal should have faded in importance as the economy strengthened during subsequent decades, the early retirement trend was seen as a logical development in an increasingly wealthy society. Some of this wealth was being "spent" on leisure, and some of this leisure was being enjoyed in the form of earlier retirement.

For at least two reasons, however, this trend is no longer viewed as benign. The first is the financial crisis facing the Social Security system as well as many other retirement programs in the public and private sectors. The Social Security system was originally envisioned as a fully funded program, capable of meeting all future claims from accumulated assets. That concept was abandoned by 1939, and today the trust fund is almost completely empty. Current Social Security revenues are paid directly to current recipients, and future receipts were recently predicted to be inadequate to meet scheduled obligations.[2] Some of this problem is temporary—due to the shortfall in Social Security tax revenues during the recessionary 1970s and to the recent overindexing of benefits for inflation.[3] Nonetheless, the problem has called public attention to Social Security funding issues—something traditionally left to actuaries and special presidential panels.

The second reason for concern is anything but temporary. The age distribution in America is changing dramatically, and the proportion of the population aged 65 and over will continue to rise through the first quarter of the 21st century. Using three different sets of assumptions concerning fertility and immigration, the Census Bureau projects that the proportion of the population aged 65 and over will rise from under 11% currently to between 17 and 20% by the year 2025.[4] The old-age dependency ratio (the ratio of those over

64 to those 18 to 64—a rough index of the retiree-to-worker ratio) will rise from 18% to nearly 33%. This change alone would put a strain on the Social Security system. When it is combined with decreased prospects for real growth and a trend toward earlier retirement, the financial strains multiply.[3]

Remedies There are two general approaches to dealing with these labor supply changes and bolstering the finances of the Social Security system. The first involves changes in the tax and benefit structure of Social Security aimed at balancing tax inflows with benefit outflows. The second, while related to the first, is primarily aimed at increasing work effort at older ages.

With regard to the first approach, the country has chosen to rely primarily on increased payroll taxes. The maximum annual contribution of employees, for example, has risen from $374 in 1970 to $2392 in 1983, an increase of almost 150% in real terms. The identical contribution from employers has done the same. Further increases in the tax rate are scheduled through 1990, and the taxable earnings base is now automatically indexed to rise with the cost of living.

But as tax inflows have risen over this period, so have outflows. The age of earliest eligibility for Social Security old age benefits was reduced from 65 to 62 for women in 1956, and for men in 1961. Moreover, real benefits have risen significantly since the late 1960s. This can be seen by looking at how the initial benefit received at age 65 has changed over the period. For example, for a 65-year-old worker with a 65-year-old spouse and with national median earnings in each year of his work history, the initial benefit rose 58% in real terms between 1968 and 1981. Legislation signed in April 1983 aims at slowing that trend. It leaves the age of earliest eligibility at 62, but reduces benefits slightly by delaying a cost of living allowance by 6 months. It also taxes benefits for high-income retirees for the first time.

More controversial and potentially more important are changes in the Social Security system scheduled to occur around the turn of the century. In 1990, the age of normal retirement will slowly begin to increase from age 65, reaching 67 in 2027. In addition, the upward benefit adjustment for delayed retirement after 65 will be increased from 3 to 8% per year. As we will see, this rarely discussed provision may alter significantly the financial incentives surrounding retirement. It will have consequences far beyond the immediate goal of balancing Social Security receipts and expenditures, and will influence the supply of labor in the future.

The second broad policy approach is to encourage and induce later retirement in an effort to slow or perhaps even reverse the retirement trend discussed above. This requires an understanding of the nature of the retirement incentives that currently exist in Social Security and in employer pensions. When these are understood, the changes in the Social Security system planned in the 1983 amendments take on additional significance. As we will see, economic incentives do influence people's retirement behavior.

IDENTIFYING RETIREMENT DETERMINANTS

The Main Determinants

One major federal initiative to permit later retirement was a 1977 amendment to the Age Discrimination in Employment Act that raised from 65 to 70 the age of earliest mandatory retirement for most American workers.[6] Both President Reagan and Representative Claude Pepper, the chief congressional spokesman for the elderly, favor the outright abolition of all mandatory retirement provisions, and many Washington observers predict this will occur in the next several years. Relaxation of mandatory retirement rules clearly increases the options available to many employees by permitting them to remain on their jobs until age 70 or longer. But whether that step alone will alter retirement trends significantly depends on why workers retire when they do.

The reasons for retirement are many and varied. Some people work until health problems force them out of the labor force: When retirees are asked why they left their last job, the factor most typically mentioned is health.[7] Others retire when they become eligible for retirement benefits: The surge of retirements at age 62—the age of earliest eligibility for Social Security retiree benefits—is certainly no coincidence. And still others retire only when they are forced to by company regulations.

Mandatory retirement rules were widespread in the early 1970s. Using data (described below) on men and unmarried women aged 58 to 61 and employed in 1969, we found that 43% faced mandatory retirement on the job they then held.[8] The presence of this constraint does not necessarily make it important, but simple behavioral comparisons suggest that it may be. One rough approach is to compare the labor force behavior of workers with and without mandatory retirement during a given transition period. Among a group aged 62 to 64 in 1973, over 57% of those without mandatory retirement before 1975 were still working then.[9] Of those who did face mandatory retirement during those two years, only 17% remained in the labor force in 1975.[10]

If mandatory retirement provisions were an important factor in the retirement decisions of a large number of workers, then delaying or removing these provisions might change behavior significantly. Unfortunately, coincidence does not imply causation. As we will argue below, mandatory retirement is closely intertwined with both Social Security and employer pension plans. The benefit structures of these retirement plans often provide strong financial incentives to retire at precisely the age at which it becomes mandatory. Because the mandatory retirement reform does not alter the financial incentives, its impact depends crucially on the independent importance of these two types of determinants. This is addressed below.

In 1969, the Social Security Administration began a longitudinal study of the retirement process by interviewing a sample of more than 11,000 men and unmarried women aged 58 through 63.[11] These respondents were reinterviewed at two-year intervals through 1979. We analyzed the first four waves of the Retirement History Study (RHS) to disaggregate the retirement determinants.

The RHS data document the close link between employer pen-

sions and mandatory retirement. We broke down a sample of men aged 62 to 64 in 1973 by mandatory retirement and pension eligibility status. Of those subject to mandatory retirement, 91% were also eligible for pension benefits from the job they then occupied.[12] And most were eligible for full benefits by the time the retirement constraint applied. On the other hand, of those without mandatory retirement, only 47% were covered by pensions on their jobs. Although pension eligibility without mandatory retirement is common, it is very uncommon for workers to face mandatory retirement without being eligible for employer pension benefits (and their retirement incentives) as well.

On the basis of simple cross-tabulations, it appears that mandatory retirement and the availability of employer pensions each contributed to the propensity to retire. As stated above, among a sample employed in 1973, only 17% of those subject to mandatory retirement before 1975 were still in the labor force when the latter year arrived. In contrast, 57% of those not subject to the constraint were still at work. Similarly, only 22% of those eligible for full employer pension benefits by 1975 were still working then, compared with 48% of those eligible for reduced benefits and nearly two-thirds of those not yet eligible. The effects of the combination of mandatory retirement and full pension eligibility is extremely strong: Over 90% of workers in this category left the labor force between 1973 and 1975.[13]

The link between Social Security eligibility and mandatory retirement was also close. Prior to the 1977 amendment to the Age Discrimination in Employment Act, the most common mandatory retirement age was 65; this was precisely the age at which workers became eligible for full Social Security benefits. As we will see below, 65 is also the age at which an important change in the benefit calculation formula takes place.

The impact of mandatory retirement and those of Social Security and other pension plans often occur simultaneously. Disentangling the independent influence of each, therefore, presents certain difficulties. The distribution of influence is extremely important, since policy proposals often address one and not the others. Fortunately, the data do permit some conclusions to be drawn.

The Financial Incentives

Both Social Security and other pensions promise eligible workers a stream of future income when they retire. The value of these pensions depends on the age of initial eligibility, the degree to which benefits are adjusted for inflation, and how the benefits grow if the employee delays claiming benefits and continues to work after he is eligible to retire. The best summary statistic for a pension is not the annual benefit, but the present discounted value (the asset or wealth equivalent) of the future income stream.

The present values of these future streams, it turns out, constitute a considerable proportion of the wealth of older workers. For many workers in our sample, they dominated all other forms of wealth including equity in the home.[14] The size of those assets, we hypothesized, would very likely affect retirement behavior. But the size of

those assets is a function of when one retires, and that function proves to be rather complex.

Nearly all employer pensions require that one leave the job in order to collect benefits. Two things happen to retirement income when an eligible worker delays collecting benefits. First, benefits are lost. But second, *future* annual benefits usually increase. Whether one's pension wealth increases or decreases depends on whether the higher future benefits offset the current benefits foregone. It is an empirical question as to which dominates.

The present value of Social Security benefits also changes when acceptance is delayed. Although Social Security can be received while one is still on the job, the worker loses $1.00 of benefits for every $2.00 earned after an initial exempt amount. As a result, most persons quit work altogether when they claim Social Security benefits. These Social Security benefits are a function of average taxable earnings. Because general wage levels and the taxable earnings ceiling have been rising over time, average earnings and therefore monthly benefits rise with continued work. In addition, workers delaying the receipt of Social Security benefits past age 62 receive an additional pension increase of about 7% per year until age 65; after 65, this upward adjustment drops to only 3% per year (a figure that was raised in 1982 from only 1%).

Employer pensions outside of the Social Security system operate with their own individual rules. In attempting to calculate the net effect of delayed retirement on such pensions, we had to make some general assumptions based on typical provisions. We assumed that benefits from employer pensions were based solely on years of service and that, like Social Security, such benefits included actuarial adjustments for delayed retirement.[15]

Measuring Full Compensation

Changes in pension wealth that depend on whether or not one works an additional year can best be viewed as a component of compensation for that year. If during the year an employee earns $20,000 and accrues an additional $5000 in pension wealth, the true compensation is $25,000. Similarly, if retirement income wealth decreases by $5000 because future increases do not fully compensate for benefits foregone, the true net pay is only $15,000. As we document below, many older workers do suffer considerable pension wealth losses with continued work. This surreptitious pay cut is a strong inducement to retire.

THE STATISTICAL RESULTS

As we noted earlier, the Social Security Administration has collected data for a large sample of older persons that permitted us to calculate their expected retirement benefits, and how these benefits would change with additional work. Table 1 documents the change in the present value of pension benefits that full-time employed men would have experienced in 1974 if they had postponed retirement by one year.[16] For employer pensions, the 63 year olds were almost evenly split between positive and negative values. Those over 63,

Gains and Losses

Table 1. Changes in present value[a] of employer pensions and Social Security associated with an additional year of work, for full-time employed men age 63 to 65 in 1974 (distribution in percent).

	Age of employed men		
	63	64	65
Employer pensions			
Reduced by more than $5000	2%	1%	6%
$3001 to $5000	2	4	8
$1001 to $3000	7	26	27
$1 to $1000	20	19	11
Unchanged	43	46	47
Increased by $1 to $1000	22	4	1
$1001 to $2000	3	0	0
Total	100%	100%	100%
Median[b]	−$148	−$1,156	−$2,062
Social Security			
Reduced by $3001 to $6000	0	0	48%
$1501 to $3000	0	1	43
$1 to $1500	12	16	3
Unchanged	6	3	6
Increased by $1 to $1500	29	45	1
$1501 to $3000	51	34	0
$3001 to $6000	3	1	0
Total	100%	100%	100%
Median[b]	+$1,852	+$857	−$3,044

[a]Present values calculated with a 5% discount rate.
[b]Median calculation omits those with no change.
Source: Data from the Retirement History Study of the Social Security Administration; calculations by the authors.

however, were more likely to lose than to gain, and by age 65 the median loss was over $2000.

Changes in the present value of Social Security benefits were even more dramatic.[17] At ages 63 and 64, the median respondent gained Social Security wealth from working another year, due to the benefit calculation formula, and the additional adjustment of 7% per year. At 65, however, the adjustment dropped to 1% (the adjustment rate that applied until changed to 3% in 1982). As a result, practically all the respondents would have lost Social Security wealth if they continued to work, and the median respondent in 1974 would have lost over $3000.

Whether these wealth changes are considered large or small depends on what they are being compared with. A logical candidate is before-tax earnings. In Table 2, we show the ratio of pension wealth change to earnings, disaggregated by pension coverage. The median ratios tell the story. At ages 63 and 64, the Social Security gains dominated the pension losses, and the median ratios were positive. But at 65, the story was reversed, and the median values suggest large wealth losses—about one-third of annual pay for those

Table 2. Changes in present value of employer pensions and Social Security associated with an additional year of work, as a percentage of annual before-tax earnings, for full-time employed men age 63 to 65 in 1974 (distribution in percent).

	Age of employed men		
	63	64	65
Eligible for Social Security only			
Loss of 30% or more	0%	6%	74%
10 to under 30%	3	4	17
under 10%	17	18	9
Gain of 0 to under 10%	23	22	0
10 to under 20%	24	32	0
20 to under 30%	23	10	0
30% or more	11	8	0
Total	100%	100%	100%
Median changes	+13%	+10%	−35%
Eligible for Social Security and employer pension			
Loss of 30% or more	6%	15%	92%
10% to under 30%	1	18	6
under 10%	18	22	2
Gain of 0 to under 10%	18	19	0
10 to under 20%	34	22	0
20 to under 30%	17	4	0
30% or more	7	0	0
Total	100%	100%	100%
Median changes	+12%	−3%	−48%

Source: Data from the Retirement History Study of the Social Security Administration; calculations by the authors.

with Social Security alone and nearly one-half for those who also had pensions from employers. These estimates are only first approximations, because they ignore tax effects and assume that all the full-time employees who continue to work receive no Social Security benefits. Nonetheless, they suggest that pension wealth changes associated with delayed retirement can be considerable.

Impact of the Gains and Losses

So far, our analysis has simply assumed that these gains and losses would affect retirement behavior. The Retirement History Study data, by providing information on the actual retirement behavior of the sample, permit a direct test of this assumption.

To explore that question, we began by analyzing the retirement behavior of the subsample aged 63 to 65 who were employed in 1973 and did not face mandatory retirement by 1975. These were employees who were free to choose whether or not to continue work. What factors seemed to influence that choice?

Variables that were tested for their influence on retirement included health, marital status, earnings potential, and changes in employer pension and Social Security wealth associated with con-

tinued work."[18] We hypothesized that retirement would be discouraged by high potential earnings, and would be stimulated by health deterioration and potential pension wealth losses.

The statistical analysis, using logit estimates of a retirement equation, confirms our hypotheses.[19] Health deterioration, full-time earnings, and changes in pension and Social Security wealth are significant explanatory variables. Other things equal, those who would lose retirement income wealth by continuing to work were more likely to retire.

The conclusions drawn thus far are from a sample of men who did *not* face mandatory retirement by 1975. Their decision to retire was based on other factors. These conclusions provide a means to answer a key question concerning those who were subject to mandatory retirement: How important was that constraint?

On the face of it, the retirement behavior of this group seemed greatly affected by the mandatory retirement factor. In our sample of men working in 1973, over 80% of those facing mandatory retirement by 1975 had stopped work by the latter date, whereas only about 40% of those not so constrained had stopped. This gross comparison, however, is misleading, because those facing mandatory retirement were much more likely to have had pensions and to suffer wealth losses if they delayed acceptance of their pensions.

Using the information gleaned from the first sample—those not facing mandatory retirement—we were able to estimate what those who did face mandatory retirement would have done in the absence of that constraint. The resulting calculation suggests that 63% would have retired by 1975, not the 83% who actually did. The mandatory retirement provisions facing this group thus appear to have had some effect in inducing retirement, but much less than the simple comparison of the two groups would suggest.

The limited significance of changing the mandatory retirement age was reinforced by some additional calculations. Using our sample of fully employed men aged 62 to 64, we asked what their status would have been in 1975 if the law raising the mandatory retirement age to 70 had been in effect then. Our best estimate is that only about 50,000 additional men from that cohort would have been in the labor force.[20] This would have raised the labor force participation rate of that group by about 2%, and would have been inconsequential in the aggregate economy.

The eventual impact of this change in the mandatory retirement age remains to be seen. Though deprived of one tool, employers retain the other. If firms are able to alter pension structures to impose even larger wealth losses on those who continue to work at older ages, the long-run effects of the change in mandatory retirement will be even smaller than the effects we have estimated. Under current interpretations of the Age Discrimination in Employment Act, pension plans are not considered discriminatory when they are actuarially unfair and discriminate against late retirees.

There is little doubt that the work incentives embedded in Social Security and pension plans have altered the behavior of older Americans. As we approach the end of this century, the costs of this policy in lost manpower will grow. The changing demographic structure

makes it imperative that policies that drive older men and women away from productive work be changed. The 1977 amendment delaying mandatory retirement was the first and easiest step in that direction. Uncapping mandatory age completely may have some small additional effect. But major changes are unlikely unless the underlying economic incentives are addressed. Nothing in this area has been done with regard to employer pensions.

The 1983 amendments to the Social Security Act, while primarily discussed from the narrow perspective of reducing future financial imbalances, are likely to have important effects on future retirement behavior. The gradual increase in the normal retirement age from 65 to 67 and the increase in the annual reward for delayed receipt of benefits past 65 from 3 to 8% per year are important changes in the incentive structure. But because none of these long-term changes will even begin until 1990, there is a danger that support for them will fade. This is true because the short-run crisis that forced their acceptance is like to subside over the next decade, and because the emphasis in the debate for their passage was too narrowly focused on budgetary considerations. While they will reduce financial imbalances, they also will increase the work effort of older people.

As 1990 approaches, and rules start to go into effect pushing back the age of normal retirement for Social Security and reducing the penalty for work beyond 65, policy analysts should bear in mind that fundamental changes of this kind in the incentive structure of our retirement are necessary to increase the work effort of older citizens.

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NOTES

1. See Schulz, James H., *The Economics of Aging* (Belmont, CA: Wadsworth Publishing Co., 1976), p. 89.
2. For an excellent overview of Social Security financial issues, see Schieber, Sylvester J., *Social Security: Perspectives on Preserving the System* (Washington, DC: Employee Benefit Research Institute, 1982), Chaps. 4 and 5.
3. See Thompson, Laurence H., "Toward the Rational Adjustment of Social Security Benefit Levels," *Policy Analysis*, 3(4) (Fall 1977): 485–508. This overindexation problem—benefits rising by more than the rate of inflation—was introduced by the 1972 amendments to the Social Security Act. It was corrected by the 1977 amendments, and disappeared entirely by 1982. See Schieber, *op cit.*
4. See Clark, Robert L., "Impending Age Structure Changes," in *Retirement Policy in an Aging Society*, Clark, Robert L., Ed. (Durham, NC: Duke University Press, 1980), Table 1.
5. Two other long-term trends are underway that also exacerbate the problems: The composition of the Social Security recipient population is becoming more heavily weighted toward retirees and away from

other beneficiaries (spouses, survivors, dependents). Retired workers have higher benefits, on average, than the others. See Schieber, *op cit.*, p. 141. In addition, the proportion of total compensation taken in nonwage forms (and therefore exempt from Social Security payroll taxation) is increasing. See Chen, Yung-Ping, "The Growth of Fringe Benefits: Implications for Social Security," *Monthly Labor Review, 104*(11) (November 1981): 3–10. We are grateful to a referee for these points.

6. Two groups were given permanent exemptions from the amendment—high-paid business executives in policymaking positions (who are defined in terms of the duties they perform and the pension benefits for which they are eligible) and certain occupations in which job performance is clearly related to age (like pilots and firemen). A temporary exemption was given for tenured university and college faculty, but that expired in 1982.
7. See Barfield, Richard E., and Morgan, James N., *Early Retirement: The Decision and the Experience* (Ann Arbor, MI: University of Michigan Press, 1969); Reno, Virginia, "Why Men Stop Working Before Age 65," Survey of New Beneficiaries Report No. 3, U.S. Department of Health, Education and Welfare (Washington, DC: U.S. GPO, 1971); or Schwab, Karen, "Early Labor Force Withdrawal: Participants and Non-participants Aged 58–63," *Social Security Bulletin, 37*(8) (August 1974): 24–38. We are skeptical of these survey results, and have discovered that many of those who claim they retired because of their health have no health limitation, and have health status as good as or better than that of their peers. See Quinn, Joseph F., "Microeconomic Determinants of Early Retirement: A Cross-Sectional View of White Married Men," *Journal of Human Resources, 12*(3) (Summer 1977), footnote 3.
8. See Halpern, Janice, "Raising the Mandatory Retirement Age: Its Effect on the Employment of Older Workers," *New England Economic Review* (May/June 1978), for similar estimates from another (1971) data source.
9. See Burkhauser, Richard V., and Quinn, Joseph F., "Barriers to Work in Old Age: A Review of the American Retirement System," in *Economic Resources for the Elderly*, Garbacz, Christopher, Ed. (Boulder, CO: Westview Press, 1983), Table 4.
10. See Barker, David T., and Clark, Robert L., "Mandatory Retirement and Labor Force Participation of Respondents in the Retirement History Study," *Social Security Bulletin, 43*(11) (November 1980), for another study on mandatory retirement and labor supply.
11. For details on the Retirement History Study (RHS), see Irelan, Lola M., "Retirement History Study: Introduction," *Almost 65: Baseline Data from the Retirement History Study*, Social Security Administration, Office of Research and Statistics Research Report No. 49 (Washington, DC: U.S. GPO, 1976), pp. 1–6. This volume also contains seven early research papers utilizing the RHS.
12. See Burkhauser, Richard V., and Quinn, Joseph F., "Is Mandatory Retirement Overrated? Evidence from the 1970s," *Journal of Human Resources, 18*(3) (Summer 1983), Table 1.
13. See Burkhauser and Quinn, "Barriers to Work . . .," *op. cit.*, Table 4.
14. See Quinn, Joseph F., "The Importance of Social Security and Pension Rights in the Wealth Portfolios of Older Americans," in *Economic Resources for the Elderly, op cit.*
15. Operationally, an additional year of work would increase the annual benefit by $1/n$, where n is the number of years with the firm. In addition, for those working beyond the initial age of eligibility, and claiming to be eligible for reduced but not full benefits, we also added an actuarial adjustment equal to the average found in their industry of employment. These assumptions are spelled out in detail in an appendix to Burkhaus-

er, Richard V., and Quinn, Joseph F., "The Effect of Pension Plans on the Pattern of Life-Cycle Compensation," in *The Measurement of Labor Cost*, National Bureau of Economic Research, Studies in Income and Wealth, Vol. 48, Triplett, Jack, Ed. (Chicago, IL: University of Chicago Press, 1983).

16. We observe these workers employed in 1973, and then observe them again in 1975. We assume that they remain employed until 1974 and then make the choice we observe in 1975. The wealth changes are therefore calculated for workers aged 63 to 65 in 1974.
17. The present value of Social Security pension payments is net of the payroll tax contributions the individuals would pay during the incremental year of work; for other pensions, we assume this tax is zero. The Social Security values also include spouse and survivor benefits. See Burkhauser and Quinn, "The Effect of Pension Plans . . .," *op. cit.*, for details.
18. This model and the empirical results are detailed in Burkhauser and Quinn, "Is Mandatory Retirement Overrated? . . .," *op. cit.*
19. See footnote 18.
20. See footnote 18.